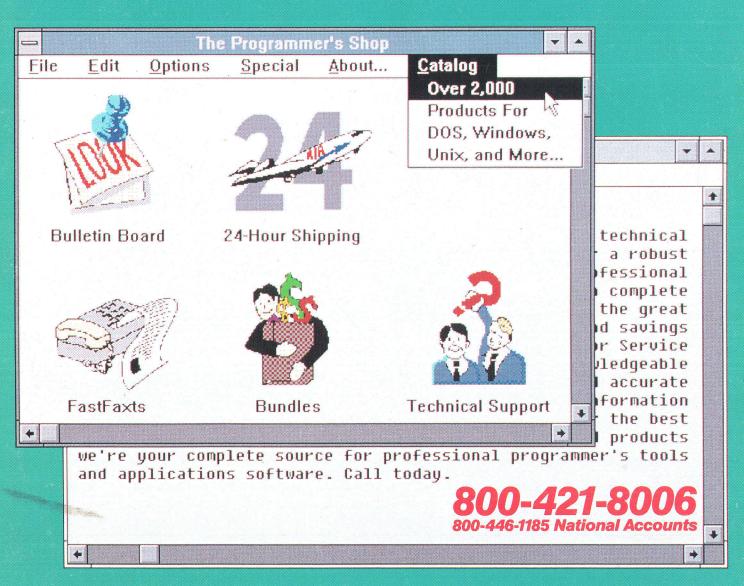
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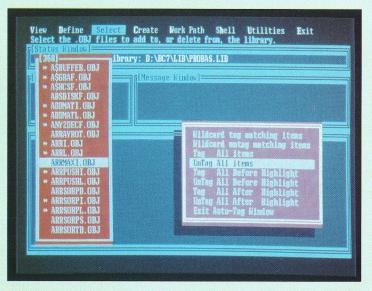


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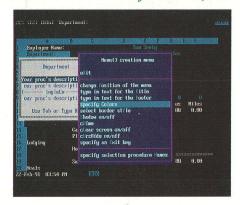
ntegrate Applications - You are a VAR leveloping a medical office system. Use Alpha RPL to make Lotus 1-2-3° and VordPerfect® work smoothly together. Your ustomers do their monthly budgets in 1-2-3, where your Alpha RPL program watches for Save command, then pops up a dialog box: re they ready to prepare the status report? f yes, Alpha RPL extracts the budget, starts WordPerfect, creates a new file, drops the numbers into boilerplate text, prints the eport, and returns to 1-2-3. You've given your customers a consistent, integrated ystem using off-the-shelf software and Alpha RPL.

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- ✓ Includes an integrated development environment with Editor, Debugger, and Library Manager.
- ✓ Includes extensive on-line help, with an index of equivalent statements in C and

- Gives you complete control of your PC. Wake up on events such as time of day or elapsed time, or whenever a message appears on defined parts of the screen, or on key presses or key combinations or interrupts.
- Lets you execute one DOS application from inside another while Alpha RPL still remains in control.
- ✓ Contains powerful single statements that let you build menus, pick lists, and other building blocks of a modern user
- Lets you call DOS and BIOS functions.
- ✓ Lets you work with DOS and dBASE®compatible files.

Alpha RPL also comes in a Mainframe Edition which makes it as easy to control and monitor mainframe sessions as it is to control and monitor PC programs. The Mainframe **Edition:**

- ✓ Stays in control when emulator programs take over the PC
- ✓ Allows you to control mainframes directly with HLLAPI commands.
- ✓ Lets you run DOS programs and batch files without leaving your emulator.

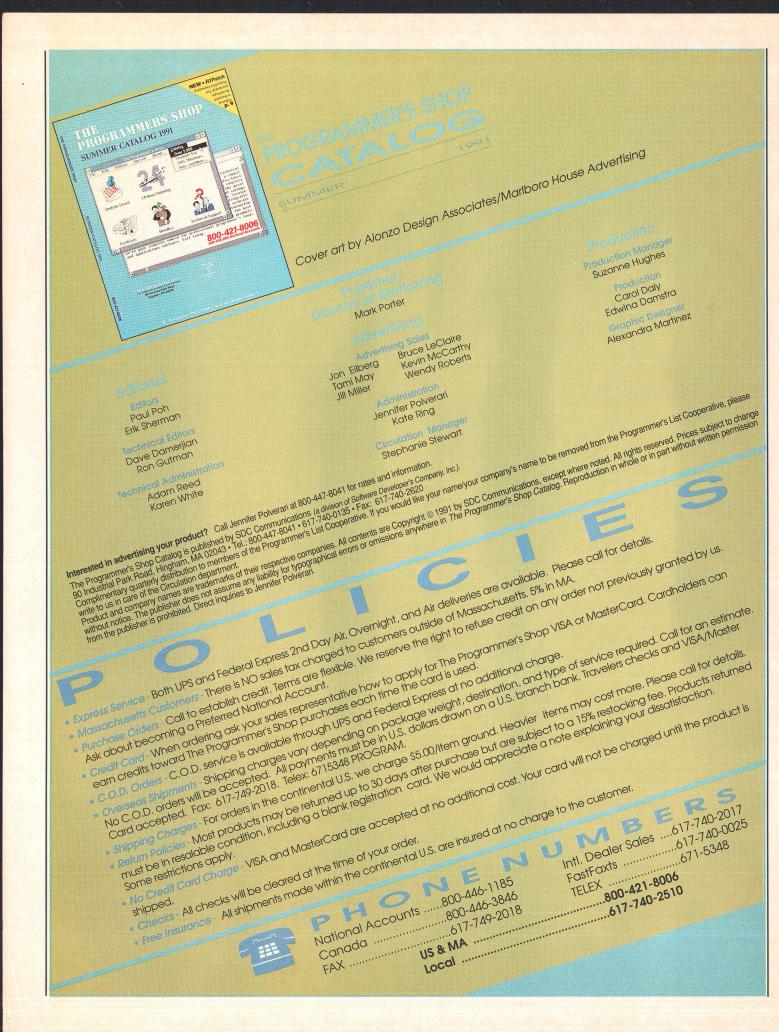
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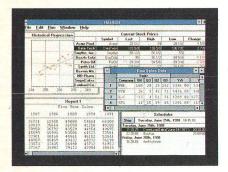
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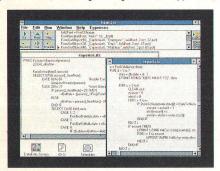
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.RTPatch analyzes the differences between the old version and the new version of any software file and creates a Patch which is automatically applied to the end-user's system. This simplifies the entire upgrading process and reduces the cost.

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Software Development News

Pocket Soft Introduces New Upgrading Technology

.RTPatch analyzes version differences and creates small 'patch' files for upgrading distributed software

Pocket Soft has just released a new product which, according to company officials, will revolutionize the distribution of software upgrades and system updates.

.RTPatch simplifies the procedures and reduces the costs of distributing and installing upgrades to software systems. With .RTPatch, software developers and system managers can build patch files which contain only the differences between the old version and the new version. When a Patch is received by the end-user, the patching process automatically upgrades the installed system to the new version. Patch files can be used to upgrade any type of file, including .EXE, database, text and spreadsheet files. Patches can be generated to update individual files, entire directories or a complete system.

.RTPatch is a very sophisticated, yet easy-to-use program which can be used by both programmers and end-users who need to update any type of software file. .RTPatch works with MS-DOS, Windows and OS/2 programs. To ensure reliability, .RTPatch performs multiple verification checks to verify proper construction and application of the patch files.

Whether updating a single file or an entire system, the .RTPatch procedures consist of two easy steps. First, .RTPatch's BUILD program performs a comparison of the new version and the old version, then creates a Patch file which contains information necessary to transform the old version into the updated version. Then, at the site to be upgraded, the user installs the Patch to his old version using the PATCH program. To apply a Patch, the user simply specifies the directory containing the version to be upgraded—. RTPatch does the installation and verification automatically.

.RTPatch works with any file type. To further reduce the size of a Patch file, the Patch is compressed once the building process has been completed.

"The concept of patching-in only the changes to a system is not new," says Bill Wise, president of Pocket Soft. "It has been done for years in larger systems and can even be done manually in the PC environment, although it is difficult and time consuming. What we have done is automate the process in order to make it easier, faster and very reliable."

.RTPatch performs numerous safety and verification checks to insure proper building and installation of Patch files:

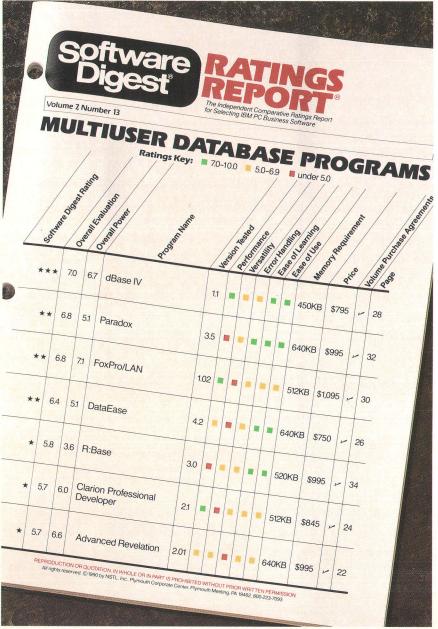
1) The Patch building program internally performs an automatic verification prior to building the completed Patch file. This routine creates a scratch copy of the new file by applying the Patch to the old file. It then compares the created scratch file against the new file, byte for byte.

2) At the installed site, the PATCH program performs a series of verification checks to insure the proper files are being addressed. Then, a back up of the affected files is performed. Once the Patch has been applied, a verification is performed to insure proper installation was achieved.

Pocket Soft is known for its popular MS-DOS linkers: .RTLink/Plus and .RTLink. These linking technologies are available as both off-the-shelf products and are included as system linkers for Nantucket's Clipper 5.0 and 5.01 product, and the Clarion Professional Compiler. Ashton-Tate has also announced .RTLink/Plus will be included in the forthcoming Professional dBase Compiler.

The list price of .RTPatch is \$495.

dTruth Comes Out.



The new dBASE IV® version 1.1 has been rated the #1 Multiuser Database by Software Digest Ratings Report (Volume 7 Number 13, October, 1990).

Because Software Digest accepts no advertising whatsoever, subscribers pay hundreds of dollars a year to receive their reviews—which are considered highly unbiased and objective.

In summation, their 75-page report says: "Among the top ranking programs, dBASE IV (version 1.1) is the most well rounded, with solid performance, versatility, and usability." Commenting on speed, Software Digest points out that "dBASE IV produces all three test reports as fast as or faster than FoxPro/LAN." As for Ease of Use/Ease of Learning, dBASE IV scored as many times in the Excellent range as any other database product tested.

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To support your 32-bit code needs, Ergo's OS/386 DOS Extender works with all the popular 32-bit compilers including Lahey, Watcom, Microway NDP and Metaware. In addition, unlike any other vendor, it also supports popular 16-bit languages such as Microsoft C, Fortran and MASM and Borland C++, Turbo C++, Turbo C and TASM. This means that if you are porting an existing 16-bit application or have libraries you don't want to recode, we save you time and effort by letting you intermix your 16- and 32-bit code. This makes creating a 386/486 implementation of your application significantly easier and quicker.

GREAT LIBRARY SUPPORT

Supporting the popular languages isn't enough. Many developers today are taking advantage of the excellent third party graphics and math libraries available to make their job easier. Ergo supports many of these libraries including Borland (BGI), C-Scape, GSS, Greenleaf, Halo, Metawindows, Sterling, Vermont Views and Zinc. Additionally, our unique RPC mechanism gives you the capability to incorporate even those libraries that are not Protected Mode capable.

WINDOWS 3.0, TOO

With Ergo, you have a clear path to the future. You don't need to decide whether to support Windows or DOS or both. We provide the flexibility your market demands. Our unique DPMI products take advantage of the Windows DOS Extender, if it's present, and provide their own DOS Extender if it's not. Your programming is simpler because you only need to create one executable for both environments.

USE THE 386 OR THE 286!

We haven't forgotten about the 286.

Ergo Computing has the most experience in the industry supporting both 286 and 386/486 systems. Our OS/286 product supports the same popular 16-bit languages as the OS/386, but is designed to operate on the 286 as well as the 386/486. It's ideal for the developer who needs to support the 286 world. And because our OS/286 uses the same API as the OS/386, when and if you decide to switch to 32-bit languages, the time and effort required will be minimal.

MARKET LEADERS RELY ON ERGO

Numerous companies have chosen Ergo DOS Extenders. Their products range from mass market programs to programs strictly for internal use. Some of the more familiar names are Borland International, Lahey, Meridian and Stepstone for their compilers; Borland, Fox and Progress for databases, Cadam and PCAD for CAD; Comshare for executive management information; Wolfram for math; and Easel for graphics.

REASONABLE PRICING

To get started, just purchase one or more of our affordable developer's kits priced for as little as \$495. You will be provided with all the tools you need to create a Protected Mode application. And when you're ready to distribute your software, our royalty-free and low-priced distribution licenses safeguard you from exorbitant fees or unwanted accounting responsibilities.

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	Ru A	1	100	/ 000- 4 21-0000 / **	/ 4	0	/
	286/386/486 COMPILERS AND DOS EXTENDER	lS		MetaWare High C 386/486			
ľ	These are compilers and special tools that take advantage of the addressing, pro-		node,	MetaWare 89-038	995	935	
ŀ	instruction sets, and/or other features of 286/386/486-based computers.			Globally optimizing ANSI C compiler generates 32-bit code for 386 or 486. Error checking; nested functions. Supports all major floating point			
l	ADA			processors. Includes MS-compatible libraries, graphics libraries,			
	Janus/Ada Compiler 386 R.R. Software 586-049	500	351	execution profiler, lint-like checking, C editor, 32-bit source-level debugger, and Unix-like utilities.			
ı	Native, 386 validated, multi-pass compiler, integrated optimization.	500	331	Requires 386/486 and PharLap DOS Extender.			
ı	Linker with code-trimming and memory models zero and one. Library			NDP C 386/486			
ı	management and make utilities; Ada tutorial. Software emulated floating point; sequential, text, direct I/O; BCD fixed point; bit/byte/string			Microway 299-020	895	829	-
١	manipulation; tasking; more. Requires 386 machine and Phar Lap DOS extender.			Globally optimizing 32-bit native code compiler. Implements Bell Labs Portable C with ANSI and Microsoft extensions plus MicroWay GREX			
ı	ASSEMBLER/TOOLS			library. Includes DOS extender (loader), linker, librarian. Supports math			
١	OS/286			coprocessors. Linkable with NDP Fortran, C++, Pascal. Call for price on 486 version.			
١	Ergo Computing 810-003	695	589	WATCOM C8.0/386 Professional Edition			
١	Go beyond 640K with 16-bit addressing to 16M. Runs on on top of DOS			WATCOM 1044-005	1,295	1,039	
ı	to provide protected mode abilities without changing DOS system calls. Works with Borland and Turbo C++; MS C, Fortran; Objective C,			Generates 32-bit 386 protected-mode code, addresses up to 4GB. MS C source/library compatibility permits porting of 16-bit applications.			
ı	Meridian Ada.			Includes 100% ANSI compatible protected-mode version of compiler,			
١	Requires 286 machine.			graphics library, full-screen source level debugger, profiler, linker, make utility, librarian, and utilities.			
١	OS/386 Ergo Computing	695	625	Requires 386/486, DOS extender.			1
l	Go beyond 640K with 16- and 32-bit addressing to 4G. Runs on top of	000	0.00	WATCOM C8.0/386 Standard Edition			
ı	DOS to provide protected mode abilities without changing DOS system calls. Supports Lahey F77L-32; Watcom C and Fortran; NDP C, Pascal,			WATCOM Like Professional edition, but without profiler, full-screen source level	895	795	
ı	and Fortran; Metaware High C v.1.7 and Professional Pascal; in addition to			debugger, or protected-mode version of compiler.			
ı	languages supported by OS/286. Requires 386 machine.			Requires 386/486, DOS extender.			
١	386 ASM/LinkLoc			C++			
ı	Phar Lap Software 420-005	1,295	1,199	Intek C++ 80386 Intek 1537-001	495	475	
ı	80x86 Embedded Development Package. Includes 386lASM Assembler, the LinkLoc embedded systems linker, the 386lLIB librarian, a			AT&T C++ on 386 machines. Features strong type checking, OOP	493	4/3	
١	development version of 386lDOS-Extender, and the MINIBUG debugger.			support, and user defined types. Compile very large programs using protected mode.			
١	386 Debug			Requires Microsoft C, Turbo C, or High C.			
ı	Phar Lap Software 420-002 Symbolic debugger for the 80386, real and protected modes. Environment	195	195	NDP C++ 386/486			
ı	compatible with 386lDos Extender, SYMDEB-like syntax and commands.			Microway 299-073	1,195	1,129	
ı	Allows disassenbly of 80x87 instructions. Provides capability to display and modify all 80386 registers.			Full AT&T release 2.0 compatible, includes as a subset a MicroWay ANSI C compiler. Features full function inliner, constructors/destructors,			
ı	386 DOS Extender SDK			single/multiple inheritance, overloading, classes, linker, librarian, and DOS extender (loader). Link with NDP C, Fortran, Pascal.			
l	Phar Lap Software 420-001	495	479	DBMS			
١	Includes 386lASM, an 8086/186/286/386/486 assembler, 386lLink linker, the 386lLIB librarian, a development version of the 386lDOS-Extender			Paradox			
١	protected mode run-time environment, and 386lDebug, a debugger for real			Borland 777-104	795	555	
ı	mode and 386IDOS-Extender programs. Supports XMS and Windows real and standard modes.			DBMS features query by example, report/form generators, presentation			
١	386IVMM			graphics, crosstabs, application language for customization, import/export, automatic record/file locking. Now includes VROOM for speed and			Ostano
١	Phar Lap Software 420-006	295	295	accessing up to 16M of extended/expanded memory. Create complete			
١	Development package to provide demand-paged virtual memory capabilities to 386/DOS-Extender SDK. Run programs with memory	1		applications without programming. FORTRAN			
١	requirements exceeding available RAM. Swaps code and data out to a disk			F77L-EM/32 with OS/386			
١	file. Requires 386/DOS-Extender SDK.			Lahey Computer Systems 334-023	1,390	1.149	
١	LinkLoc			Full FORTRAN 77, 32-bit compiler for writing and porting programs up	1,000		
١	Phar Lap Software 420-004	795	795	to 4GB. Includes Weitek support, DO WHILE and END DO statements, video graphics, editor, VAX and IBM VS mainframe extensions,			
١	Extended linker package for 80x86. Includes LinkLoc, an enhanced version of the 386 Link linker which supports output formats for			diagnostics, debugger, Pre-Processor and support for conditional			
١	8086/186/286/386/486 in-circuit emulators and PROM programmers. Also			compilation. OS/386 includes virtual memory support, free runtimes. Requires 386 machine.			
١	includes 386lLIB librarian.			NDP Fortran 386/486			
١	286 DOS Extender SDK Phar Lap Software 420-045	495	479	MicroWay 299-011	895	829	
١	A protected mode environment which allows developers to use the	433	4/3	Globally optimizing VAX/VMS compatible FORTRAN compiler. Supports Intel, Cyrix, Weitek coprocessors. Full FORTRAN 77 with DOD,			- Carpon
١	Microsoft C compiler, linker, and CodeView debugger to build protected- mode applications up to 16M without overlays or bank-switched EMS.			FORTRAN 66, BSD 4.2, and VMS extensions. Linkable with NDP C,			
ı	Functions as a layer between DOS and the application program. Supports			C++, and Pascal. Includes linker, DOS extender (loader), and librarian. 80486 specific version available.			
ı	VCPI, XMS, DPMI, DLL's.			WATCOM FORTRAN 77/386			
١				WATCOM 1044-007	1,095	1,095	
١	386 C Code Builder Intel 2799-028	695	599	Generates 32-bit 386 protected-mode code, addressing memory space up to 4GB. Run-time compatible with WATCOM C/386. Includes protected-			
١	Complete 32-bit software development package. Full 32-bit compiler, 32-	093	333	mode version of compiler, full-screen source-level debugger, full ANSI			
	bit linker, 32-bit source code symbolic debugger, 32-bit MS compatible libraries and utilities, and MAKE facility. Does not require runtime			FORTRAN '77 language support plus extensions, profiler, SAA compatible, linker, librarian, make utility, more.			Brown
	payments for executable code production.			Requires 386/486, DOS extender.			
	Requires 386, 2M.			OBJECT-ORIENTED			No.
-	MetaWare High C 386/486 MetaWare 89-001	895	875	Smalltalk/V 286	000	475	SHIRON ST
	Locally optimizing ANSI C compiler generates 32-bit code for 386 or 486.		3/3	Digitalk 38-001 Object oriented programming language. Mouse interface, graphics,	200	175	Malan
	Error checking; nested functions. Supports all major floating point processors. Includes MS-compatible libraries, graphics libraries, C editor,			windows, and source-level debugger. Royalties apply.			Steller
	and UNIX-like utilities for DOS. INCLUDES 32-bit debugger.						NO.
	Requires 386/486, Phar Lap 386/486 DOS Extender.						Statute.

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PASCAL Prof. Pascal 386/486 MetaWare Optimizing Pascal compiler. Linkable with C and other languages. C-like bit manipulation, variable-length strings, C-like extensions, error checking. Supports all major floating point processors, including Weitek. Generates 32-bit code for 386 or 486.	795	769	Power Basic Spectra Publishing 777-015 BASICA and GW-BASIC compatible. Editor, compiler, linker, and debugger in an integrated environment. Supports control structures, recursion. Features procedural math package, unlimited string space, COM3/COM4 support up to 115K, and network support to give control over file access.	129	119
Requires 386/486 and DOS extender. NDP Pascal 386/486 Microway Globally optimizing 386 native code compiler including linker, DOS extender (loader), librarian, GREX graphics library, preprocessor, separate module compilation. Supports math coprocessors; implements ANSI/IEEE standard with 4.2 BSD Pascal and BSI Level 0 extentions.	895	829	C Structured language widely used at all levels of industry due to its flexibility an C can be nearly as efficient as assembler, so it is often used to write operating other user-intensive software. Many C++ compilers also come with very good (See also C++ Language; Cross Assemblers and Cross Compilers. TopSpeed C Jensen & Partners 1159-007	systems	s and
A comprehensive modular language, based on Pascal, designed primarily fragreems, business, scientific, and engineering applications. Especially go	or embe	edded large	ANSI compatible optimizing C compiler. Extended library functions include a time-sliced scheduler, text windows. Borland windows supported. MS graphics supported, with bar chart and polygon plotting, formatted text output to graphics windows. Integrated environment		
projects. Designed by and a standard for the Department of Defense. See also Cross Assemblers and Cross Compilers. IntegrAda AETECH Validated compiler with integrated Ada Programming Support Environment (APSE). Includes pop-up windows, language sensitive editor, syntax checker, and more. Library with graphics, sound, math, utility, floating point, RTEXT_IO, STRLIB, more. No extra memory or math coprocessor needed. DoD 2167 documentation aids.	495	409	includes built-in make, hypertext help system. MetaWare High C DOS x86 MetaWare 89-001 Optimizing ANSI C compiler. Lint-like checking. Nested functions. Linkable to Pascal and other languages. Floating point support. Comes with MS-compatible libraries, graphics libraries, C editor, and Unix-like utilities for DOS. Generates 16-bit protected mode code for OS/286 and DOS16M.	495	439
Janus/Ada x86 Compiler R.R. Software Validated multi-pass compiler, integrated optimization. Linker with codetrimming and memory models 0 and 1. Library management and make utilities and Ada tutorial. Runtime libraries with 80x87 support; software emulated floating point; sequential, text, direct I/O; BCD fixed point; bit/byte/string manipulation; tasking; more.	99	79	C 6.0 Compiler Microsoft Programmer's Workbench integrated environment allows incremental compilation and linking; Source Browser allows interactive browsing through project database, reviewing relationships/use of variables, functions, definitions, and macros. Also build and add-on tools; CodeView 3.0 takes less than 20K on 286 or higher PC. Supports DOS, OS/2, and MS Windows.	495	349
ASSEMBLY Symbolic machine language. In an assembly program, each line stands for instruction. Each chip type has a different assembly language. Since assembl rather unstructured, assembly programs can be difficult to maintain, but they extremely efficient. See also Disassemblers; Linkers and Librarians; Cross Assemblers and Cross	y langua y can al	age is so be	Quick C/Assembler Microsoft 502-089 Adds an integrated assembler to the QuickC environment. Also included is QuickAdvisor, a hypertext electronic reference guide to all ROM BIOS and MS-DOS calls, including sample code which can be pasted into your own programs.	199	149
Cross Development and Embedded Systems. Turbo Debugger & Tools Borland Troba Turbo Debugger 2.0 with reverse execution, 286 protected mode, keystroke record/playback, mouse support. Turbo Profiler 1.0 shows how	150	119	QuickC Microsoft 502-067 Incremental compiler, hypertext on-line help, advanced debugger with back step. Memory resident, compatible with Microsoft C Compiler and CodeView.	99	69
code and files are used, how calls are made. Turbo Assembler 2.0 100% MASM compatible. Multipass assembler generating optimized code. Macro Assembler (MASM) Microsoft 502-033 Macro assembler for MSDOS and OS/2. On-line help, extensive documentation, editor, Code View debugger, library manager, program maintenance utility, EXE file compression utility, EXE file header utility,	150	105	C Network Compiler Novell 141-032 Optimizing compiler and tools for creating client applications which run on Novell NetWare. Compiler, based on Watcom C, includes editor, source level debugger, and Microsoft compatible linker. Includes library of NetWare API's and Btrieve record manager. Tutorial includes theory, commentary, examples.	695	595
and cross-reference utility included. OPTASM SLR Systems 130-001 MASM 5.0-compatible (except for 386 support) assembler, better handling of forward references, out-of-range jumps, EXTERN. No BYTE PTR, WORD PTR. Very fast.	150	135	Instant-C Rational Systems C language development environment. Incremental compiler, interpreter, type-safe incremental linker, source-level debugger, code browser, configurable editor. Pointers checking, arrays, function and return addresses, more. Environment RAM-based. MS C source, object compatible. Handles programs over 100k lines. Requires 286/386/486, IM.	495	479
An easy-to-learn language that is used by many beginners and experienced pro a wide variety of applications, especially in the business field. GFA BASIC GFA Software Contains 500+ commands and functions. Includes interpreter as well as editor. Contains commands for creating graphics user interfaces such as pull down-menus, alert boxes, menus, etc. Supports hard disk swapping,	249	195	WATCOM C 8.0 Professional Edition WATCOM 1044-012 Includes: 100% ANSI C optimizing compiler and library; protected-mode version of compiler; Windows support; library and source MS compatibile; graphics library; overlay linker; profiler; source-level, remote, overlay debugging; MAKE; runtime compatible with FORTRAN 77, SAA compatible, and WATCOM Express C. Includes 16-bit 80x86 DOS, Windows, and OS/2 versions.	495	439
special math functions, strings and arrays larger than 64K, math coprocessors, and more. Portable to Microsoft Windows version of GFA BASIC. BASIC Compiler Microsoft Develop programs for both DOS and OS/2. Includes editor, CodeView debugger, and QuickBasic.	495	349	WATCOM C 8.0 Standard Edition WATCOM Same as Professional version, but without OS/2 and Windows support, execution profiler, and protected mode version of compiler. C Video Course Zortech 1108-014 Complete, compiler and machine independent, C language training course	395 295	359 275
QuickBASIC Microsoft Integrated development environment. Includes full-screen editor with automatic syntax checking, instant context-sensitive help, multiple windows, and Undo command. Window-oriented debugger, quick compiler, math coprocessor support, interlanguage calling, and structured programming support.	99	69	complete, compiler and machine independent, changing training course in 36 lessons on ten VHS videotapes with workbook and tutorial disk. Also includes Zortech C compiler. Extra workbooks available.		

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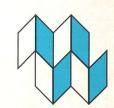
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See also C Language; Object-Oriented Languages; AI and Object-Oriented Libraries.

Borland C++	
Borland 777-120 495	379
Borland's C++ compiler for DOS and Windows. Support for large disk drives and 80286 instruction set. Complete support for Windows without the SDK. Turbo Drive Compiler and Environment runs in protected mode. Pre-compiled headers. Includes Whitewater Resource Toolkit, Turbo Profiler, and Turbo Assembler.	
Turbo C++ 2nd Edition	
Borland 777-080 99	88
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C++ V3.0 Developer's Edition Zortech

1108-072 Contains everything needed to develop compatible applications for DOS, Windows, OS/2 and DOS 386. Includes Zortech DOS Extender to develop applications up to 4G, and 16 bit DOS Extender for 2/3/486 machines. Includes WINK library to convert DOS command line programs to Windows ones; C++ tools, library source.

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Dialog System Micro Focus 90-023 1,000 Keyboard-driven screen painter generates screen files, tests screens then compiles COBOL program. Includes tools for developing screens and

keyboard dialogs; royalty-free runtime. Personal COBOL

Micro Focus 90-013 149 ANSI 74 High level standard COBOL interpreter; includes editor, code generator, and Animator. Recommended for students.

COBOL Optimizing Compiler Microsoft 502-066 900 639 Certified High 85 COBOL. Supports many dialects. Animator debugger. Network and DOS support, huge memory model, indexed files, make,

editor CICS Realia 444-001 995

CICS system includes CICS-to-COBOL preprocessor, BMS macro processor, resource definition processor, map editor. COBOL

Realia 995 859 COBOL compiler creates executable files. Compatible with VS COBOL Includes many ANSI 85 extensions as well as a line editor, sort, and debugger. NO runtimes required.

RM/COBOL-85 Rvan McFarland 1.250 1.189 COBOL compiler/runtime system. Conforms to 1985 and 1974 ANSI. Language extensions for X/Open and SAA compliance. Allows compilation of application into machine independent portable object code.

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Requires 256K. Runtime available. NetWare development and runtime versions available.

COMPILERS

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also Cross Development and Embedded Systems Tools; Assemblers; C Language; Ada

See also Cross Development and Embedded Systems 1001s; Assemblers; C Language; Linkers and Librarians.	iguage;	Aaa
C Cross Compiler American Automation ANSI C for various chip families. Features vary somewhat between varieties. Most include prototype, keyword "const", enum type, and float type. All varieties create ROMable code and include cross assembler and linker.	895	879
Cross Assembler/Linker American Automation Cross assemblers for various chip families. Two pass cross assembler/linker produces listing, relocatable object code, cross reference, and error files. Command line options and pseudo-instruction macros. Produces ROMable code.	595	58
AVMAC AVOCet 325-002 Cross assemblers for various chip families. Produces listing, cross-reference, relocatable object files. Syntax consistent within Avocet line. Specify target processor:	395	379
C Cross Compiler Various Avocet Floating point, bit fields, unsigned char, STDIO and UNIX v. 7 I/O libraries, enum types, type checking. Source to runtime library, assembler, linker.	895	829
C6805 Code Development System Byte Craft Write code for 6805/6305 microprocessors in C. Has C compiler with built-in macro assembler, AI optimizer, generates ROMable code, extensive C support for interrupt routines, built-in editor, and other features. Users can insert assembly language routines in C programs.	795	689
Z8C Code Development System Byte Craft Optimizing C compiler that targets code to Z8 family of embedded microprocessors. Includes macro assembler, editor and integrated development environment. Produces ROMable code and has support for arrays, structures, unions, enumerated types, function prototyping, initialization of variables and interrupt routines.	795	689
Cross-16 Meta-Assembler Universal Cross-Asm 2889-001	99	9

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See also Dbase; SQL; Image, Sound, and CD Databases; Data File Handler and Reporting; CASE and Code Generators; Query Utilities.	s, Quer	ying,
Magic PC Aker Relational database engine and application developer. Includes screen, window and report editor, query and sort utilities, on-line help. Built around Btrieve library. Streamlined application design method eliminates coding. Runtime available. LAN version available.	499	489
Magic PC LAN Aker 812-002 Multi-user version of the Magic PC RDBMS. Compatible with Btrieve files.	799	799
Paradox Borland 777-104 DBMS features query by example, report/form generators, presentation graphics, crosstabs, application language for customization, import/export, automatic record/file locking. Now includes VROOM for speed and accessing up to 16M of extended/expanded memory. Create complete applications without programming.	795	555
Paradox Multipak Borland 777-106 Increases the number of simultaneous users by five.	995	853
Clarion Personal Development Clarion Software Create and run customized programs. Eight ready-to-use programs, quick start feature. Programs and data files upwardly compatible with Professional Developer. Has relational capabilities, functions, utilities, and development environment. Imports/exports .DBF, 1-2-3, ASCII files. No run-time licenses or fees.	79	69

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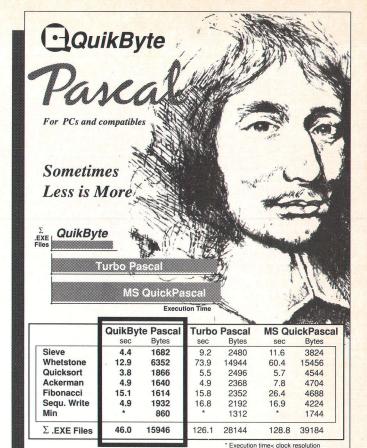
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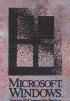
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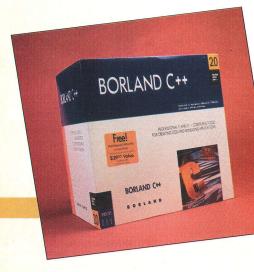
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DOS Graphics – Create professional-looking, graphical user interfaces in DOS Graphics mode. You don't need Windows or any other graphics-based operating system.

DOS Text – Automatically support 25X40, 25X80, 43X80 and 50X80 DOS text display modes with Zinc 2.0. Or create one .EXE to support BOTH text AND graphics modes.

Zinc Designer

With Zinc 2.0's powerful new interactive design tool, you'll be building professional-looking applications in a matter of hours rather than days or weeks. A simple menu and mouse click are all that separate you from Zinc's powerful window objects.

Zinc Designer also features window, menu, input field, button and icon editors to create and modify window objects.

Event and Window Managers

Zinc's sophisticated event manager seamlessly integrates user input from both the keyboard, the mouse and other input devices. The window manager and Zinc's support resources automatically handle mark, cut, copy and paste operations as well as event and palette mapping.

Robust Window Objects

Zinc features a full complement of window objects including: window, border, title, maximize, minimize, system and standard buttons, date, time, string, formatted string, text, prompt, number, matrix, icon, pop-up and pull-down menus, pop-up window and scroll-bar.

Comprehensive Documentation

Over 1,000 pages of documentation make it easy to use Zinc's object-oriented architecture. There's even a 300-page tutorial to help C programmers who are moving to C++.

COMPATIBILITY: MDA, HER-CULES, CGA, EGA or VGA display adapters, regular or enhanced-style keyboards, Microsoft compatible mouse drivers, Microsoft Windows, Quarterdeck DESQview or IBM TopView run-time environments.

ZINC SOFTWARE INCORPORATED. 405 SOUTH 100 EAST, SUITE 201, PLEASANT GROVE, UTAH 84062 USA. General: 1-801-785-8906, FAX: 1-801-785-8996, Bulletin Board System: 1-801-785-8997 (2400, 8, N, 1). Copyright® 1991 Zinc Software Incorporated. All Rights Reserved. Zinc and Zinc Interface Library are trademarks of Zinc Software Incorporated. All other trademarks and tradenames used herein are owned by their respective companies. *Requires DOS & Windows version.

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BRIEFor C++ requires BRIEF 3.0 or higher, IBM PC or 100% compatible, and 384K RAM. Hard drive required.

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dANAYLYST GOLD 5.0 is the development environment for C, C++, dBASE compatibles, and Paradox. dANALYST GOLD includes a screen painter, menu generator, report writer, source code generator, documentor, indenter, beautifier, source code analyzer, programmer's editor, mouse support, and much much more.

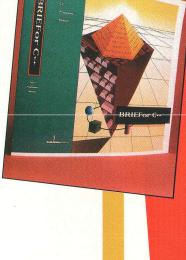
Support for multiple platforms and languages!

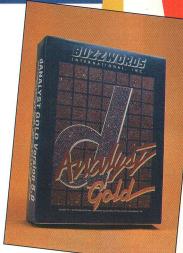
Get dANALYST GOLD for DOS, Microsoft Windows, or Unix. Create Windows-based relational database applications without knowing the SDK. You can generate and text both single-user and network model applications while cutting your development time. And dANALYST GOLD supports the PharLap 386 and OS/386 DOS extenders.

One version supports dBASE III Plus, dBASE IV, Clipper 5.0 and Summer '87, FoxBASE+, FoxPRO, QuickSilver, dBXL, Paradox, Microsoft C, Borland C++, WATCOM 386, JPI C, Metaware High C, Microway C, Zortech C++, Novell Network C, and others.

Developer libraries included.

dANALYST GOLD comes with a video and DBMS libraries. The video library has complete user interface, fast screen I/O, seamless integration with third party libraries, international language support using high bits, and mouse support. The DBMS library supports DBF, NDX, IDX, and NTX data indexes and also supports many popular third party DBMS libraries.







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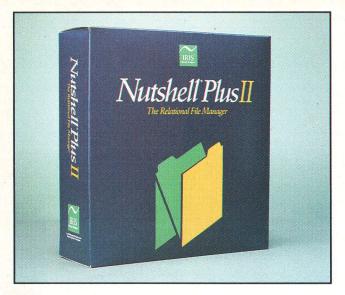
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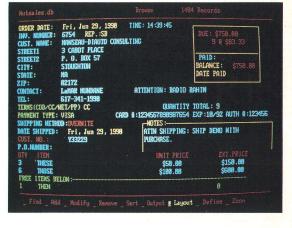
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Iris Software Flat file database which will let you use the same data for many different purposes, without retyping. Nutshell can summarize data and calculate subtotals. The same file can be used to send letters and create reports. Knowledgeman/2	295	235	Ashton-Tate Application development environment. Includes dBASE IV data management system. Programming tools, utilities, template language, royalty-free runtime. No returns unless defective.	1,295	849
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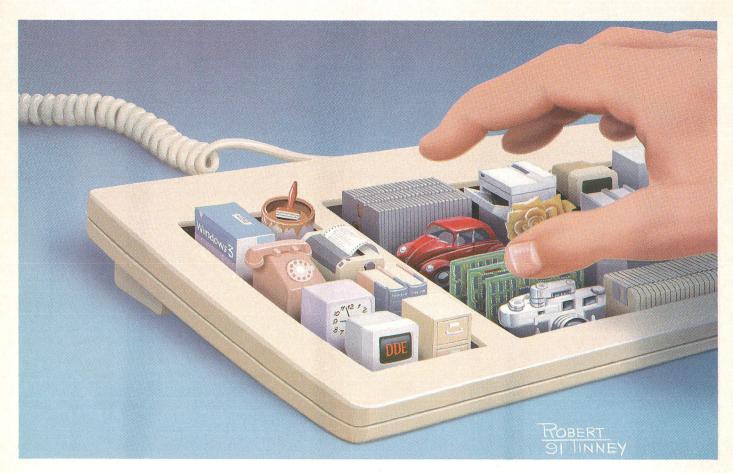
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Fox BASE+/LAN Fox Software Includes all the features of Foxbase+ for an unlimited number of user connected to one file server. Automatic file and record lockin capabilities.		479	Exsys Professional Exsys Includes all the features of Exsys plus a command language, dBASE III and Lotus interface, rule compiler, input screen support, additional confidence modes, array functions and hypertext capability.	795	695
Runtimes available. Fox Pro 2.0 Fox Software Character-based windows interface with preset popup menus for standar database functions. Command window; enhanced, user-oriented brows	ed e	5 509	level, object oriented programming language with hypertext and expert system technology.	495	419
and edit windows; debug window; window-oriented report and labe writers. Enhanced dBASE IV language, optional mouse support, increase EMS usage, more files allowed. LAN, runtime versions available. FoxPro/LAN 2.0	d		Guru FirstStep mdbs 1506-010 Application development system with expert systems tools. Relational DBMS, SQL support, 4GL, forms management, report generation, remote communications, spreadsheet, text processing, graphics, more with	895	799
Fox Software AN version of FoxPro for unlimited users. Automatic file and recorlocking. Clipper 5.01	1,295	895	seamless integration. Open architecture. Menu, direct command, natural language interfaces. Set rules. Personal Consultant Plus Texas Instruments 249-003	2,950	1 622
Nantucket 1139-003 Open architecture database programming system using Dbase datafil structure. User-definable commands and functions. Programming language allows integration of code from other languages. Compile	e g	550	Expert system design tool for creating large knowledge-based systems. Can use 286/386, extended or expanded memory. Interfaces to PC Scheme, C, Turbo Pascal.	2,930	1,033
generates .EXE files. Replaceable database driver. Overlay linker Network support. SQL support.	r.		Procedure Consultant Texas Instruments Automate complex business procedures, policies and diagnostic/repair problems without AI background. Access DOS programs, upwardly	605	495
Sophco dBASE compiler generates native machine code. Call C and Assemble routines directly. Produces Intel format object modules. Support conditional compilation, include files and #define statements. Support dBASE commands and adds enhanced features.	S	299	compatible with Personal Consultant Easy or Plus. NeuroShell Ward Systems Group Neural network shell, uses the back propagation network technique.	195	179
Sunshow Database Pro Sun Country Software Image processing database add-on, stand alone view utility. Links into most dBASE compatibles and will display most graphics formats on most		95	Neural network is "trained" through examples. Works well with fuzzy logic. FORTH A language for gaining direct control over nearly every aspect of the ma	chine	Very
displays. Version available for Targa boards. T-BASE Videotex Systems Add PCX pictures to Clipper, dBASE, FoxBASE databases. Support		419	extensible, FORTH allows a programmer to essentially create his own lan primitives. FORTH is a threaded interpreter which incrementally compiles maximum flexibility without sacrificing performance. HS/FORTH Personal	iguage o	out of
most video modes. Picture display with 40 or 80 column text; pop-up an size picture windows in any position; print screen snapshots, text, or pictures to an HP LaserJet II. Supports scanned documents, 1024x768 Multiple pictures on screen. No royalties. Requires Clipper, dBASE, or FoxBASE.	or		Harvard Softworks Includes the HS/FORTH student system plus an optimizer and floating point manipulation. HS/FORTH Production	245	229
Quicksilver/SQL Wordtech Compiler allows dBASE applications to communicate with Gupta'		1,295	Harvard Softworks 423-003	499	489
SQLBase through implementation of Invisible SQL and Embedded SQL Translates dBASE commands into SQL commands. Allows SQL querie to be explicitly formulated within dBASE applications. Create executables which do not require runtimes or royalties. Requires Gupta's SQLBase.	es		FORTRAN Developed in the 1950s as the first high-level language. Due to continuing refi still the language of choice for many scientific and engineering applications.	inements	, it is
dBXL WordTech Systems 971-017 Compatible with dBASE III PLUS files and syntax. Various extension included; up to ten files open at once. R&R Relational Report write included. DOS access, improved printer control. Network version available.	ıs	179	F77L Lahey Computer Systems Includes debugger, editor, profiler, linker, library manager, make utility, Weitek support, video graphics. DO WHILE and END DO statements and additional VAX and IBM VS functions. Full ANSI 77, MS C and Turbo C interfaces, diagnostics, and popular mainframe features. New Fortran 90 features like block names.	595	549
Quicksilver WordTech Systems 971-005 Compiler to convert dBASE III PLUS or dBXL programs into executabl code. No runtime necessary. R&R Code Generator included. Othe advanced features. Compiles LAN versions.	le	429	Personal FORTRAN w/Toolkit	129	119
			FORTRAN Optimizing Compiler Microsoft Full ANSI 77 standard compiler, supports both DOS and OS/2. Includes many VS and VAX extensions, GSA certified error-free. Comes with editor, linker, librarian, make, and CodeView debugger. Overlay linker	450	309
			allows large programs under MS-DOS.		

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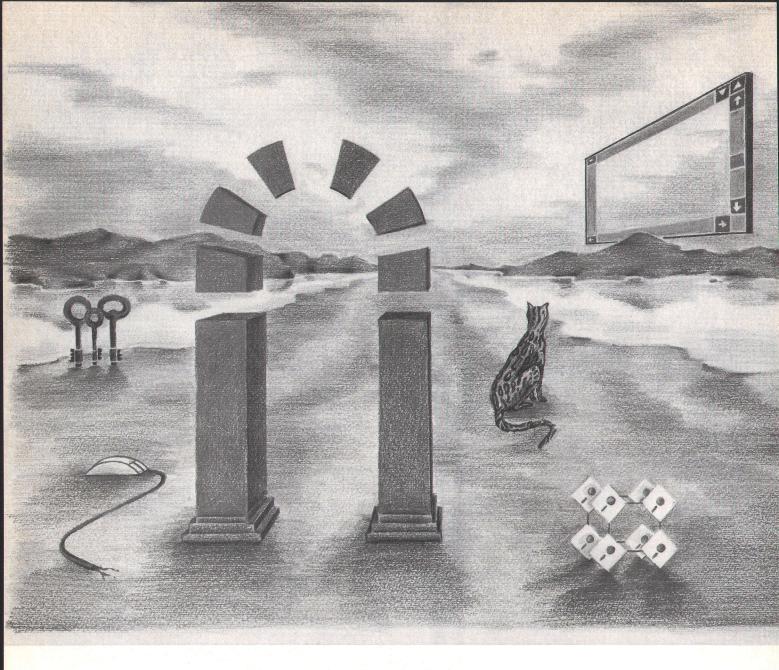
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NVD FORTRAN Compiler			MODULA-2		
NKR FORTRAN Compiler NKR Research 2033-001	495	425	Advanced version of Pascal developed by the inventor of Pascal. Has the power when simpler system. Medular programming allows consists compiletion		
Globally optimizing compiler with VAX/VMS FORTRAN extensions. Conforms to ANSI 78 and MIL-STD-1753 standards. Seamless UNIX			much simpler syntax. Modular programming allows separate compilation. checking, concurrent routines, interrupt handling.	Strong	type
integration, compatible with host debugger, extended data types and operations, and other extensions. Call programs in other languages			TopSpeed Modula-2 Jensen & Partners 1159-001	400	400
without interfacing subroutines.			Optimizing Wirth standard Modula-2 compiler with OOP extensions,	199	189
RM/FORTRAN Ryan McFarland 437-009	505	400	multi-window/multi-file editor, automatic make, uses JPI's generic code generator, passes parameters in registers, common sub-expression		
Full ANSI 77 standard, includes popular extensions from VAX, VS, and	595	499	elimination, and more. Hypertext help, visual interactive debugger, and JPI and Wirth libraries.		
66 standard. Code optimization, floating point coprocessor support/emulation.			TopSpeed Modula-2 Extd.		
WATCOM FORTRAN 77			Jensen & Partners Standard version plus support for MS Windows programming, DOS	395	369
WATCOM 1044-014 Optimizing Fortran 77 compiler uses register allocation and code	495	449	dynamic link libraries, full source code to libraries, assembler that generates libraries directly, disassembler, execution profiler, code locator,		
generator optimizations to produce 16-bit 80x86 code. Offers protected mode, SAA compatibility, GKS graphics library, debugger, overlay and			watch utility, post-mortem debugger, and more.		
remote debugging, profiler. Includes OS/2 support.			Professional Modula-2 Stony Brook Software 1046-006	205	050
WATFOR-77 WATCOM 1044-016	375	339	Development system. Includes QuickMod and "turbo" compilers, runtime	295	259
Integrated compiler, editor, debugger. Compiles source directly into memory, automatically links and executes. Interactive debugger with	0.0	000	library, DOS linker, more. Runtime library source available.		
problem-solving aids. Supports ANSI FORTRAN X2.9-1978 and many			OBJECT-ORIENTED LANGUAGES In object-oriented programming (OOP), a data structure and the code needed to	o manir	vulate
enhancements. WATCOM GKS Graphics library of ANSI standard routines. Runs compatibly on PCs, IBM mainframes, and DEC VAXs.			the data are combined into an object. Objects are hierarchically organized to be		
MULTI-MEDIA DATABASES		1144	classes, so that a new object can be easily created, passed, or modified. See also AI and Object-Oriented Libraries; C++ Language.		
Database management systems incorporating images or sound, or dimplementation on a large storage device such as a compact disk.	lesigne	d for	Smalltalk/V Digitalk 38-001	100	70
See also Database Management Systems; SQL; Graphics Libraries; Presentati Prototypers and Demo Builders.	on Grap	ohics;	Object oriented programming language. Mouse interface, graphics,	100	79
HyperPAD			windows, and source-level debugger. Royalties apply. Smalltalk/V 286		
Brightbill-Roberts 1104-003	150	139	Digitalk 38-001	200	175
Object-oriented authoring environment with HyperCard-like features for customizing DOS or front-ends to interfaces. Uses HyperTalk-like			Smalltalk/V programming language plus a DOS extender. Create more complex objects. Faster graphics and windowing, integrated color. Push		
scripting language. Supports external funtions written in C, Assembly. Includes pads for DOS, billing, more.			button debugger. Requires a 286 or 386 machine.		
HyperBase Developer			Smalltalk/V Goodies #1		
Cogent Software 397-004 HyperBase Personal plus unlimited runtime distribution package and data	249	219	Digitalk Utilities for multiprocessing, object loading, DOS interrupts, forward	50	45
encryption utility. No royalties.			chaining. Complete source included. Requires Smalltalk/V or Smalltalk V/286.		
KAware DISK PUB/TextImage Knowledge Access 1964-001	995	600	Smalltalk/V Goodies #2		
Prepare, index and access free-form text databases on optical storage media: CD-ROM, WORM, or rewritable disk. Accepts information from			Digitalk 38-004 Tools include spelling checker, bitmap printer, random number generator,	50	45
word processors, DBMS's, spreadsheets, and scanners. Retrieval system features keyword/hypertext/Boolean searching, menus, windows, notes.			pretty printer. Complete source included.		
Can integrate image data.			Requires Smalltalk/V or Smalltalk V/286. Smalltalk/V Goodies #3		
Laser/Works EMV LaserLaw 2721-001	4.000	3,559	Digitalk 38-004	50	45
Data indexing, retrieval for MS-DOS; CD-ROM, WORM, network, erasable, hard and floppy disks; 3-5% maximum index overhead.	1,000	0,000	Includes 3D editor, directed graph browser, class matrix, neural network application, and chess game. Complete source included.		
Features: 42 million fields indexes, datasets; append to update. Retrieval features: Boolean searches, exclusive internal edit search functions, more.			Requires Smalltalk/V or Smalltalk V/286.		
Royalties on retrieval package.			OTHER LANGUAGES		
Showcase Image Database Sun Country Software 1629-010	595	495	Alpha RPL Developer Alpha Software 2138-009	595	99
Easy to use high resolution image database for scanned or video capture.	393	433	Language for creating memory resident applications. Complete TSR programming environment including editor, debugger, and library	333	33
TGA, GIF, PCX, Animator .FLI. Zoom, scale, pan. 3-D buttons to 1024x.			manager. Automate complicated or repetitive tasks. Integrate various applications under common interface. Interpreted language contains over		
LISP A language for processing symbol sequences ("lists") rather than numbers, I	JSP us	es the	230 commands and functions.		
same constructs to handle instructions and data. New language elements can the user. LISP is heavily used for artificial intelligence applications.			PC Logo Harvard Associates 459-001	100	70
See also Prolog; AI and Object-Oriented Libraries.			Full Logo implementation features turtle graphics, DOS, BIOS and	100	79
Gold Hill GCLISP 1.1 Gold Hill Computers 54-001	350	319	assembly calls. Includes tutorial, reference manual, sample programs and utilities diskette.		
Training and development package based on major, lexically scoped subset of Common LISP. Includes San Marco LISP Explorer (60 lesson			RPG II Development Sys. Lattice 72-042	4 000	4 000
self-guided LISP tutorial with examples), interpreter, EMACS-style editor, debugger, on-line help, and DOS file/program execution support.			IBM System/36 version 5.1 compatible compiler, EBCDIC and ASCII	1,600	1,266
STAR SAPPHIRE COMMON LISP			support, dBASE III file compatibility. Includes Screen Design Aid, Sort/Merge Utilities, GSORT, OCL Processor Source Entry Utility.		
Sapiens Software 669-003 Common LISP implementation. Includes incremental compiler,	99	90	LPI-PL/I		
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PC Scheme Texas Instruments 249-007	445	95	access to such resources as DI-3000 graphics and FORTRAN-compiled statistical analysis packages.		
Dialect of Lisp. Includes editor, debugger, and incremental, optimizing	115	93	Requires 386 machine.		
byte-code compiler. Graphics, windowing, and math coprocessor support.					



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- · Zoom button
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- · Context-sensitive, on-line help
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interface to MASM, C, BASIC, FORTRAN, COBOL. Optimizing linker; disassembler; library, graphics, and OS functions. User-selectable optimization levels; math library.		
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QuikByte 2717-005	270	249
Combination of QuikByte Pascal and Turbo-SC.	_,,	-10

PROLOG A language for processing symbolic sequences; heavily used for artificial intelligence applications See also LISP; AI and Object-Oriented Libraries.

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		249	239	
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Coromandel 1738-015	295	229
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	Sculptor 4GL+SQL Development MPD International Develop applications in DOS and move compiled code and data to over 100 other computer platforms includiong networks, XENIX, Unix, etc. Compiled applications and Data Files are Binary Transportable. Runtimes required for distribution.	795	779
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9	Ocelot 2 SQL Ocelot DB2 compatible SQL relational database. Includes interactive, command driven SQL interface for on-line queries, SQL precompiler for various languages, report writer, and database library. Compiles with full ANSI Standard for SQL. Includes source code for report writer. Single user version. Multiuser license available.	195	179
	Oracle Tools Oracle Includes SQL*Plus, an ANSI-standard SQL query tool; SQL*Forms; an interactive development environment; SQL*Menu, a 4th generation menu tool; SQL*ReportWriter; Client Manager. Requires Oracle Tools and Database (Prof Oracle).	799	749
7	Pro*C Oracle C language precompiler and subroutine call interface to Professional ORACLE. Embed SQL calls in C programs; link C programs into ORACLE SQL*Forms applications; protected mode debug utility for C programs. Requires Professional ORACLE.	399	379
9	Professional ORACLE Oracle PC port of database management system that runs on over 80 different platforms. Full featured database language is exactly the same on all platforms. Use up to 1M for program code and 15M for data. Works with PC LAN servers; runs true distributed applications.	1,299	1,219

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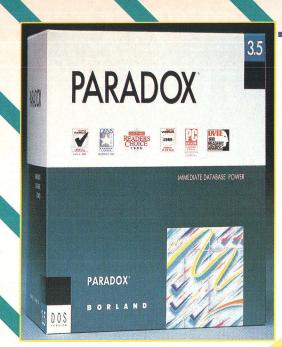
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Control-Break trapping. Supports Hayes; Digiboard and other multiport boards; 35 ports at up to 115,000 baud. Includes source code. Specify C or C++ compiler.			Zortech, Turbo, Borland C++. COMM-DRV Willie's Computer SW 2941-001	159	149	
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SilverWare 767-001 Interrupt driven, asynchronous communications library for C. Provides ANSI and TTY terminal emulation. Supports DigiBoard 8 and 16 port, AST Four Port, and IBM Dual Async Adapter. Supports XMODEM, YMODEM, and ASCII file transfer, Micro Channel, 16550 UART. Norton Guide database. Source included; no royalties.	249	239	languages such as C. These libraries provide increased flexibility and speed database management systems, in return for increased development time. See also Database Management Systems; Dbase; SQL; Data File Queryin Reporting; CASE and Code Generators; Query Utilities. BASIC	compar	ed to	
Supports most popular C compilers. Essential Communications			db/LIB Database Library AJS Publishing 1302-001	99	89	
South Mountain Software Interuppt driven asynchronus communications library for C on both the receive and transmit sides. Runs at baud rates up to 115K with up to 34 ports and buffers to 500K. Supports V.32, MNP and Hayes compatible modems; XON/XOFF, XMODEM, YMODEM, KERMIT and ZMODEM	329	249	Access dBASE III+ files from QuickBasic. Includes routines corresponding to many dBASE functions: browse, append, etc. Built-in database query system to select records and more. No royalties. Requires Quick Basic.			
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Comet CompuSolve 3221-001	99	99	management. Full source included. BTRIEVE			
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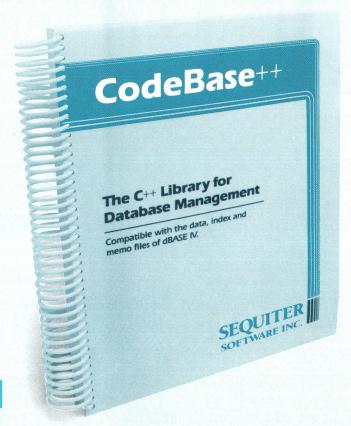
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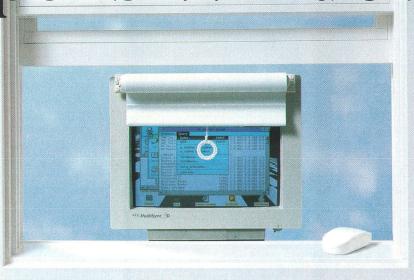
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Bee_UTIL Service Success Inc. Direct, royalty-free replacement for BUTIL. Menu-driven for end-users or command line interface for batch mode execution. Automatically scans directories for btrieve files. File creation based on Novell CRE specifications.	149	139	db_VISTA III Raima 126-094 C database management system. Developed in ANSI C and portable to various platforms including Windows, OS/2, UNIX, and VMS. Includes linkable runtime libraries with 200 routines for data access, disk caching, file and record locking, and more. Provides both relational data and network data models.	195	159
Paradox Engine Borland 777-070 C library providing interface to Paradox database. Create, read, and write of Paradox tables in single- or multi-user environments. Supports explicit file and record locking, password protection, shares data concurrently with other Borland applications, data searching, and more. Compatible with many networks.	495	383	Specify C compiler. Single user version. Code Base 4 Sequiter Software Dbase file and screen management for C. Supports dBASE III, III Plus, and IV files, Clipper index files, and dBASE and Clipper memo files. Read, write, seek, enter data, use windows and build menus. Library supports R&R, dBXL, dSALVAGE. Multiuser, no royalties. Source included, ports to OS/2, Microsoft Windows, and UNIX.	295	279
D-Isam Byte Designs Multi-key B+ Tree indexed file manager which conforms to Informix C-ISAM standard. Implemented as library of routines written in C. Maximum size of 64K records and over two billion records per file. Includes 6,800 lines of commented source code.	595	549	Supports Turbo, Quick, MS, Watcom C; Zortech, Turbo C++ BTree/ISAM (Multiuser) Softfocus B-tree file manager with all C source code. Multi-user support includes record and file locking routines. Files can have multiple keys and indexes.	175	149
AccSys Copia International Seamless interface between C and dBASEIII, IV, or Paradox. Create, add, delete, modify, update database files. File operations 100% compatible with database. Supports number of index/record access methods. All C memory models supported. Examples with source. Supports Turbo,MS C,QuickBASIC. Source and/or MU versions avail. Specify database/compiler.	395	349	Single user license available. Essential B-Tree South Mountain Software Database library for C. Supports single user, multi user and network applications; single/multiple keys, fixed/variable length records, file/record locking, and floating point keys. Converts to/from dBASE III data bases. Includes C source code. No royalties.	199	149
AccSys for dBASE MU Copia International Same as single user version but also includes record locking. AccSys w/source	750	695	B+Tree for C Sterling Castle Multi-key, variable length records, partial key search, 40 indexes per index file, compatible with files created using ISAM included with BASIC Development tools. Complete source, no royalties.	79	69
Copia International Library source included. C-TRIEVE Coromandel X/Open standard based file manager which supports unlimited indexing, multi-level transactions, locking, and an upgrade to SQL. Callable from C and C++; allows applications for multiple environments like DOS, XENIX, and UNIX. Upgrade to an SQL database with minimal effort.	795 295	739 285	C++ CodeBase++ Sequiter Software Multi-user database management library for C++. Contains C++ classes for working with dBASE IV data, index, and memo files. Other classes for setting up filters and relations, evaluating dBASE expressions, sorting, memory management, and manipulating linked lists. Includes DLL for Windows. Source included.	295	279
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FairCom Integrated package includes c-tree+, r-tree, d-tree. c-tree file handler does variable length records, key compression, B+trees; r-tree report generator does multi-line reports, conditional page breaks, dynamic specs; d-tree environment does prototype generation, data dictionary, overlapped windows, menu management. Includes source and multiuser, OS/2, UNIX, VMS support.	1,295	1,159	MANY/OTHER 123 Library Atlantic Automation Product .WKS and .WK1 worksheet files. Complete Lotus command set. Functions for reading/writing Lotus 1-2-3 1.x/2.0 files. Examples for all routines. Supports Graph Ranges and Name Tables. Source available free to registered users.	155	140
Toolbox Special Edition FairCom 45-007 Object libraries to Toolbox Professional. Single user support only. Supports Microsoft C, Turbo C, XENIX, and OS/2. dBC III Plus Lattice 72-012 Multi-user version of dBC III. Access dBASE III Plus files; network	695 500	539 384	Available for Turbo Pascal, C; MS C; Zortech C and C++. WKS Library Raima 126-044 Access Lotus 1-2-3 and Symphony files (.WKS and .WK1) and dBASE files (.DBF). Functions to read and write, plus higher-level functions. Supports Excel, Clipper. Supports most C compilers.	195	149
support. Available for Lattice C, Microsoft C, and Turbo C. Source available. Specify C compiler. CBTREE Peacock Systems B+Tree ISAM file manager, multiuser/network capability. Supports variable and fixed length keys you create. Runs on DOS, Xenix, UNIX and others. Comes in C source code form with sample programs. See also CB/IQ Report and CBTREE/SQL in Data File Querying. No Royalties. Supports most C compilers.	195	179	PASCAL Skipjack MAX Software Consultants BASE-style function library in Turbo Pascal. Truly compatible with dBase files and indexes. Complete DBMS. Over 350 functions; 25+command line utilities to ZAP, CREATE, BROWSE, etc. Includes complete dBASE expression parser, support for MEMOS, etc. Fully networked and multi-user. Full source code. Requires Turbol Quick Pascal.	299	299

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B-Tree Filer Network TurboPower Software 167-014	189	169	Supports Turbo Assembler; MS MASM; OPTASM. Available with source.		
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others.			Crescent Software 716-027	149	149
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Libraries for examining and generating reports from databases. These are more routines than those for data file handling, optimized to display and combined to the state of th			QuickPak Professional Crescent Software 716-038	100	100
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Novell 141-013 Relational DBMS, SQL superset. Utilizes Btrieve files. Callable from	795	649	368 routines, most in assembly language. Routines cover improved string	149	149
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FAST TEXT SEARCH			Mach 2		
Index Applications A library for rapid, free form, full text searches of memo fields, multiple	129	89	Micro Help 597-001 General purpose assembler subroutine library, including store string arrays	79	69
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Norcom 649-001	350	339	C Tools Plus/6.0		
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dQUERY			I/O, printer. Online help database compatible with QuickC, QuickHelp, MS Advisor; miniature multiline editor; pop-up help; documented source		
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Supports query-by-example and ANSI level 2 SQL. Use interactively or within dBASE programs. Queries against multiple dBASE files, joining			Turbo C Tools Blaise Computing 269-018	140	100
dBASE and 1-2-3 files. LAN support included.			General functions for Turbo C. Stack, remove, and write to windows;	149	109
SQL Pascol /B			specify word wrap. Write directly to video adapter for speed. Supports EGA and VGA text modes. Horizontal, vertical menus. ISR, writing		
RaSQL/B Communication Horizons 776-005	249	219	TSRs. Includes pop-up help, miniature multiline editor, documented source, mouse support. No royalties.		
Interface Btrieve with Clipper. Access data using embedded SQL statements, or DBF-like commands. Pop-up help with Rettig, Norton			Supports Turbo C & C++, Borland C++.		

Functions
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General function library for C. Includes source code in C and Assembler.
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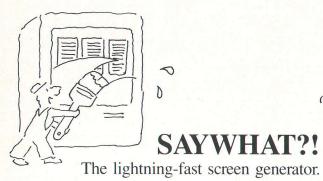
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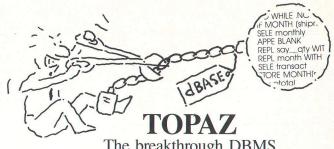


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C Utility Library South Mountain Software 42-037 400+ C functions for menus, keyboard, and data entry. EMS 4.0, window	249	189	partial screens in memory. Complete access to DOS files and Clipper's internal SET variables. Written in assembly language. SmartMem			
editor/file browser, and file back-up utilities. Menuing system, screen painter, and code generator allows building user interfaces complete with mouse support and keyboard exits. All source included.			Integrated DevCorp Prevents "Out of Memory" errors by reducing amount of fragmentation in free pool. H pack() rejoins free pool memory blocks. Diagnostic functions show where problems lie and which constructs to avoid.	89	90	
Blackstar C Function Library Sterling Castle General function library for C. Includes utilities for file handling, graphics, communications, and mouse support. Source code included.	99	89	Complete system of SmartMemory eliminates fragmentation and apportions 64K of EMS for variable storage. Pro Clip			١,
Supports most C compilers. C++			Market Service 1392-001 For Clipper. Flexible - most functions developed with variable parameter passing. Includes DOS, equipment, environment, screen, string, and	195	185	
Tools.h++ Rogue Wave General purpose C++ class library. All classes are not derived from a single root class. Memory and disk resident classes for Set, Bag,	199	189	general functions. ClipOn ProWare Corporation 3267-001	99	89	
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General Clipper library. Includes routines for arrays, BIOS, keyboard, memory, date/time functions, video displays. Implements a dBASE compatible browse. No royalties. Clipper Summer 87	159	139	Appointment scheduling program including daily, weekly, monthly, or yearly viewing; repetitive event facility; printout; alarm clock; multi-user with optional hierarchy, and more. Includes full Clipper source. CLIP2EB			
ClipWord with SpellClip Action Plus Software Wordprocessor and spell checker for use with Clipper Memoedit. Includes bold, underline, import/export, field merge, margins. 25,000 word	200	189	SuccessWare Gives access to Emerald Bay database development system from within Clipper. Features include client-server environment, variable-length fields, automatic file index maintenance, full featured data dictionary, transaction processing, binary fields.	199	189	
dictionary, and dictionary builder for unique industries. Source included. Zipcode/Clip			CLIPPER			
Action Plus Software Automatically look-up cities, states, or zip codes in your dBase, Clipper, or Fox applications. Includes over 46,000 zip codes for U.S. cities. Source included.	100	89	Grumpfish Library Grumpfish Inc Database browser with integrated screen designer that generates fully- optimized Summer '87 or 5.0 code. Help screen development tools, desktop utilities, over 80 other functions. Over 800K source code for	199	199	
GET-IT Communication Horizons 776-004 Clipper enhancement library. SaveGet and RestGet for nested reads;	129	119	Summer '87 and 5.0; includes Norton Guides reference database. Use to learn Clipper. FORTRAN			
GerRow, GetCol query location; Sfield for mouse location. Event trap functions: NoKey for timeout; NewFld for cursor entering new field; OnTick calls procedure at regular clock interval; more.			Spindrift Library Spindrift Laboratories 911-001	149	129	
FUNCKY.LIB dLESKO Associates 1395-001 Clipper function library includes more than 400 functions for popup windows, pulldown menus, mouse support, advanced video support, faster	249	239	General subroutine library for FORTRAN. Features string routines, DOS interface routines, screen routines, keyboard routines and many other useful functions. Supports Microsoft, Ryan McFarland, and Lahey FORTRAN. Specify FORTRAN compiler.			
EXTEND.LIB function replacements. Steve Straley's Toolkit Four Seasons Publishing 1278-003	400	400	MANY/OTHER SpellChecking Engine			
Clipper library includes 543 routines for menus, popup utilities, arrays, database/table generation, screen color, trigonometric and financial functions, packing .DBTs, find files, word processor, report writer, more. Also includes source debugger, sample programs, and a database file for Tom Rettig's Help.	180	169	Geller Software Labs 1945-003 Library with dictionary of over 100,000 words and maintenance program to add or remove words. Maximize lookup speed or minimize memory usage. Supports many languages like Clipper and C. License allows for distribution of 25 programs with engine included. Developer version for	249	229	
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CLIPX GG Compu-Systems 2644-001	249	239	handling, more. Complete source. No royalties. Supports Turbo Pascal or Quick Pascal. DateCalc			Section of the sectio
Contains functions for handling screen, images, arrays, databases, strings, menus, dates, "SET" status and more. DBHANDLE supports index based partial tables, panning with lockable display fields, dynamic search, more. Comes with on-line guide for Norton Guides. Free upgrade to Clipper 5.0 compatible version.			O.K.Soft 3018-003 Date calculation routines for Turbo Pascal. Uses algorithms, not tables. Date plausibility, workdays, holidays, date information, leap year and weekend checking, day/workday distances, date from date plus number of	99	89	
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TurboWINDOW/C Metagraphics 318-005 All features of MetaWINDOW in form of loadable TSR for use with Turbo C++ 2nd Ed.	150	139	plots. Unlimited windows/plots per page. Device independent procedures. Written in C and assembly. Low-level routines for line, polygon drawing, more. Mouse support. Source available for MS QuickBASIC, C, FORTRAN; Turbo C.		
GraphiC Scientific Endeavors Publication quality scientific graphics. Labeled plots include linear, log, 3-D, polar, and bar. Hidden line removal, shaded surfaces. PostScript, GEM, PIC, and HPGL file conversion. Source included. Supports most C compilers.	395	319	DXF Subroutine Library Farbit Research Toolkit for generating AutoCAD DXF drawing files from Fortran, C, Basic, and QuickBasic programs. Routines for 2D and 3D drawing entities include line, text, arc, circle, point, polyline, layer, and 3D face. Includes all source code for routines. Vector to DXF conversion. Supports all releases of AutoCAD including release 11.	195	175
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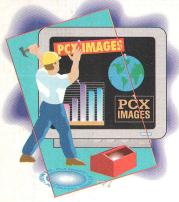
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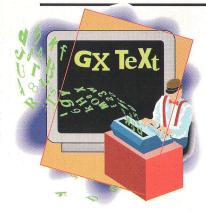
Finally, a programmer's toolkit that helps you incorporate graphics into your programs quickly and easily. The PCX PROGRAMMER'S TOOLKIT includes over 90 routines to display, save, scale, and print PCX bitmapped graphics from almost any program. Includes nine utility programs for capturing screens, displaying images, managing image libraries, and printing image files.

Use graphics from PC Paintbrush, Scanners, Fax Machines, Clip Art, or captured screens.

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Now you can display blazing bitmapped text in any graphics mode as simply as text mode. With GX TEXT, you can display your textual information right along with your graphical data, using the display or off-screen virtual buffers. Routines are included for displaying any font in the GEM font file format, with dynamic attributes like bolding, underlining, transparency, and more. Includes a

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* PCX TOOLKIT, GX GRAPHICS, or GX TEXT recommended but not required.

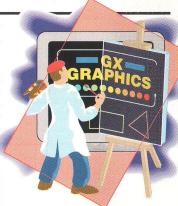
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PCX Programmer's Toolkit w/source Genus Microprogramming 1265-009 Complete package including fully commented structured assembly langauge source code for the PCX Programmer's Toolkit. GX Developer's Pak	599	550	design and animation of complex graphic objects. Device independent 2D, 3D functions provides the designer capabilities like 3D-transformations, Z-buffering, multiple lightsources, shading, B-splines, texture mapping, more for generating realistic models. **PASCAL**		
Genus Microprogramming Combination of PCX Programmer's Toolkit, PCX Text, PCX Effects, and GX Graphics. Source code available. GEOGRAF Level ONE	696	559	GFX Fonts & Menus C Source Text output and graphics interface library. Use with stand-alone graphics or compiler. Includes many fonts, typefaces, and symbols. With source. No royalties.	50	50
GEOCOMP Allows mainframe graphing power to be added to PC programs. Provides callable subroutines and functions to create report quality plots and graphs. Supports 13 fonts, four line types. Import graphs into HPGL files. Graphic drivers included. OS/2 compatible. Specify Basic 7, OuickBASIC 4.5, TBC, or MSC.	149	139	GFX Graphics C Source Supports all video standards, fill areas with a color or pattern, 16 viewports with automatic scaling and local or world coordinates. Source code included.	150	139
GSS Graphics Development Toolkit Graphic Software Systems 223-073 Device-independent graphics programming environment with high-level routines to speed application development. Device drivers support over 300 graphics displays, hard copy, and input devices. Supports most popular compilers.	795	699	GRAPHICS WINDOWS Libraries other than Microsoft Windows for creating window interfaces on screen. See also Text Screens; Microsoft Windows; Graphics Libraries; and Operation Enhancements.		
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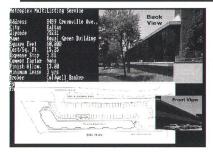
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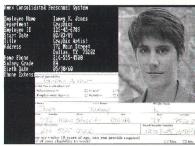
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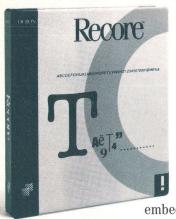
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METAWINDOW			Math.h++ Rogue Wave 2807-004	200	189
Menuet Autumn Hill Software 1263-005	325	279	Class library for numerical computing. Classes for vectors, matrices, complex numbers, Fourier transforms, linear algebra, random numbers,	200	109
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Includes Data Entry Designer on-screen WYSIWYG environment to create data entry menus: basic/advanced form attributes, context-sensitive			generation, integrals, roots of polynomials, and series summation. Subset of NAG mainframe libraries.		
help, much more. Auto-code generation. For graphics-MENU. Specify MetaWINDOW, BGI, MS graphics. Version			Requires NDP FORTRAN-386. Workstation Library		
with source available. graphics-MENU			Numerical Algorithms Group FORTRAN library of math routines, including zeros of polynomials,	795	759
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Requires C compiler and MetaWINDOW. MANY/OTHER			Scientific Subroutines Wiley Sci. and Tech. 177-003	295	295
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digitizer, recording/editing program, and API for QuickBASIC, BASIC 6.0, MS PDS, MS C, MS Quick Pascal QuickC, MASM, Turbo C, Turbo Pascal, and Turbo Assembler. Sound played back through PC internal speaker.			OPERATING SYSTEM ENHANCEMENTS Libraries for extending the capabilities of DOS: multiuser, multitasking, memoreal-time, and TSR (Terminate-Stay-Resident) libraries.	ry expan	sion,
RECore Programmer's Kit Ocron 2671-004	995	895	See also Memory Managers; Multi-Tasking Enhancements; Menuing Systems Memory Hardware.	and Sh	ells;
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etc. See also Comm & LANs section.			real-time applications. Optional time sliced scheduling, enhanced interrupt and trap handling, expanded user's guide. Unlimited number of tasks, context switching, full inter-task communication (shared memory, semaphores, blocking queues, events).		
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Novell Allows access to NetWare functions from C programs. Accounting, bindery, communication, connection, diagnostic, directory, file, print, queue, AppleTalk filing protocol tools, synchronization services, file	295	239	Disposes initialization code and data. More than 250 functions written in assembler. Includes full DOS I/O from TSR, up to 256 hot keys, software traps, scheduler, BCD-Math, and TSR removal. Includes examples. PDK#1		
server and workstation environments, value-added processes, more. Examples included. CLIPPER/DBASE			Microsystems Software 1941-004 More than 50 functions for CodeRunneR including background COMM up to 34 ports, 115K baud, handshake control, chained buffers, Digiboard	99	89
NetLib Communication Horizons 776-001	249	229	and StarGATE support. LIM 3.x and 4.x support. Most TSRs less than 1.5K. PDK#3		
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and chapter on Clipper extend system. Supports Novell 2.x and 386. MANY/OTHER NPPC			heap management functions. No reprogramming, just relink. Finds difficult heap errors with improved debug and analysis routines. Also 132 MB virtual memory manager with overflow to extended memory and disk.		
Applied Software Applied Software Network inter-program communications. Write applications, servers, DOS LANs. Transmit requests for service, establish "logical sessions" between client and server, implement synchronous or asynchronous processing, receive messages in sequence by function and/or priority. Link to	495	445	Includes source. "C"EMM Library Silverware Over 60 functions provides access to Expanded Memory Manager by providing direct link between program and EMM driver. Using EMM,	149	139
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Quarterdeck 847-001 Interfaces for API functions, including source code and sample programs.	200	175	Fleming Software BGI-compatible graphics drivers for Turbo C/Pascal. Implements most Turbo screen graphics functions for LaserJet and Epson, postscript, and	299	239
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Intermix text and graphics, scale images independent of printer resolution, correct image aspect ratio. screens at a time, up to 130 fields per screen, 19 predefined and userdBarCode Designer QuickWindows Timekeeping 1229-002 149 149 Software Interphase 69 65 Prints bar codes from dBASE III+ and compatibles. Can be used as a standalone. Variable heights, mix with ASCII. Supports code 3 of 9, code 2 of 5, interleaved 2 of 5, UPC A formats; dot matrix, LaserJet printers. Object-oriented screen layout tool for QuickWindows Advanced. Includes windows, help screens, dialog boxes. Text and object editor works in multiple windows. Edit object parameters, save screens, QuickBASIC source code generator, mouse support, context-sensitive help, more. SORT UTILITIES QuickWindows Advanced Utilities for sorting database, numerical, text, and other data files using various algorithms. Software Interphase 1040-004 149 139 See also Sort Libraries. QuickWindows for text screens with additional graphics- mode capabilities. Windows, menus, data entry, dialog boxes, mouse support and COSORT Information Resources more. Source available. 200 185 Sorting/merging with unlimited files, records, and keys. Interactive and Supports QuickBASIC. batch operation. Link to C, FORTRAN, COBOL, and more. Optional user input, compare, output, and interrupt procedures. Additional material for C and FORTRAN development. Workalikes in UNIX/XENIX. HIM (Human Interface Manager) Allsoft 262 Opt-Tech Sort 1837-020 349 C library for handling windows, menus, keyboard, text editing, data entry, and on-line help. Features four styles of menus, tag lists, mouse handling, idle background processing, keyboard macros, and protability between DOS, VMS, UNIX, and XENIX. Specify Microsoft C, Quick C, or Borland Turbo C. Opt-Tech Data Processing 104-003 116 149 Assembly language sort/merge/select utility. Callable from DOS or user program. Unlimited files; up to 30 key fields can be searched. Royalties Supports almost all popular compilers. CUA Library/CUA Workbench TEXT PROCESSING LIBRARIES Arcadia Technologies 499 695 Graphical User Interface C library for building SAA/CUA compliant Libraries and utilities for direct processing of text. See also Word Processors and Outliners; Editors; and Text Screens. applications. Provides function calls to dynamically define panel elements such as action bar, pull-down, entry field, selection field, etc. POWER SEARCH Curses Blaise Computing 149 103 Aspen Scientific Searches for character strings or regular expressions in DOS and OS/2-688-002 189 189 Implementation of the full UNIX curses package: screen attributes, windows, etc. Includes screen generator, version of UNIX make. OS/2 support, no royalties. UNIX System 5.3 compatible. Version with source based applications. Generates customized code to search for given string or pattern, including wildcards representing digits, upper or lower case letters, etc. Source included. No royalties. code available. Specify C compiler. Supports MS C, QuickC, Turbo C, Turbo C++. String External Tools Vitamin C Creative Programming

Network Dynamics 3892-001 C library which externalize textual prompts and messages for translation into foreign languages. Supports string editing (or encryption) without recompilation, reduces static data space, and maintains format control

characters, Compatible with popular C compilers, includes royalty-free license. Source code available.	
Word Wrapper STRATEGIC EDGE 1942-001	99

Memo field alternative that stores text in standard .DBF fields (only saving used lines). Editor has automatic paragraph-reformatting and can cut, copy paste, search & replace. Includes source code for Clipper, Fox, dBASE IV & Ouicksilver. Supports Clipper, Foxbase, dBASE IV and Quicksilver.

Devel	loper	S	KIT
Syste			

Complete C source code. Includes TE text editor with key stroke macros, large file handling, undo, and more. TER small editor routine.

ProBas HyperHelp Toolkit Hammerly Computer

Hypertext engine allows you to put full manuals online with full search abilities. Specify single or multiple windows, and window color and placement. User can move and resize windows, use mouse or keyboard, and use up to 40 bookmarks to move between links. Hypertext can be created from any ASCII text. No royalties. Requires ProBas library.

150 139

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159

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169

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Greenleaf Software

Supports Microsoft, Watcom, Turbo C++, and Zortech C++.

WYSIWYG screen painter and code generator for Vitamin C.

included. Portable.

Specify MS C, Turbo C/C++, or Watcom C.

VC Screen

buffering.

Creative Programming

Requires Vitamin C

Crystal CURSES Crystal Software

Greenleaf DataWindows

Windowing system features 254 simultaneous overlapping windows, device independence, Windows/TopView compatibility, save/restore windows to disk, 3 types of menus, scrollable forms, running totals, data help/validation/journaling. No royalties. Source free with registration. Specify C compiler.

Screen management library that enables building of UNIX System V

compatible code for DOS. Functions include facilities for window

management with attribute, color, and border control. Controls characters,

strings, timing, sound, keyboard, text moving, cut-and-paste, and window

Interface library includes many menu and window types, input fields, push

buttons, check boxes, list boxes, scroll bars, help manager, pop up text editor, fully integrated mouse support. Open architecture full of hooks for customization and extensibility. Source, telephone and BBS support

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31-001

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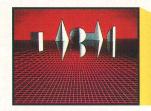
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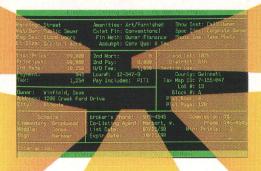
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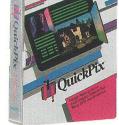
And that's only the beginning. QuickPix lets end-users display an image at the touch of a key. Once displayed, the user can resize, move, scroll, pan, zoom, or print the image.

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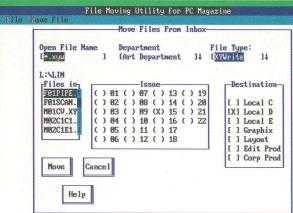


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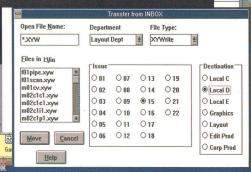
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MakeForm			COBOL			
Greenleaf Software 55-031 Advanced C screen generator for Greenleaf DataWindows. Full featured	125	119	SCREENIO Norcom 649-001	400	379	
editor for data entry form design. Functions for cut, paste, block move, copy.			Screen manager for COBOL. Full screen editor for designing screens. Create and use full screens and windows, redefine keys, specify tabbing	100	0,0	
Specify C compiler. MEWEL Window System			order, modify colors at runtime, do integral fields validation, more. Options to import BMS (CICS) or SDA (System/36) panels. No royalties.			
Magma Software Systems 769-005 Character-based window system and library for building applications with	295	279	Supports Realia, IBM, Micro Focus, and Microsoft COBOL. MANY/OTHER			
look-and-feel of MS Windows or Mac applications. Adhere to SSA/CUA standard. API similar to MS Windows API at message and function level.			Flash Tools			-
Support for all controls in Windows. Mouse support; EGA or VGA. Full sibling, parent/child clipping.			Avis-Hills 1201-002 Interface development package includes a WYSIWYG screen painter with	89	63	
Supports Microsoft C and Turbo C. Lib. MEWEL Window Sys w/source			over 20 special effects, a menu designer with dynamic menuing ability (items determined at runtime), and many low-level functions.			
Magma Software Systems 769-005 Includes library source.	595	569	Specify dBASE, C, or Pascal compiler/interpreter. Face-It			
C Windows Toolkit			Black & White Intl. 1178-002 Windowing system automatically sizes windows to fit the layout of your	99	80	-
Magna Carta Window management library provides multiple overlapping windows,	100	95	.DBF or ASCII files. Uses data file structure to create menus. Supports context-sensitive help, mouse support. No royalties.			
exploding window effects, up to 255 active windows, unlimited total number of windows, store/reload windows from disk, data entry			Supports most popular compilers. POWER SCREEN			
validation, editor functions. Support for Hercules/EGA/VGA 30/43/50 line modes, fonts and color. Full source included.			Blaise Computing 269-015 Design data entry forms or windowing interfaces. Screen painter and	149	99	
C Windows Toolkit/386 Magna Carta 1438-004	200	189	routines for range checking, help, and definable keys. Supports QuickBASIC, MS C, QuickC, Turbo C, QuickPascal, Turbo Pascal.			
C Windows Toolkit for Watcom 386 runs in protected and real modes. Includes 8086 version. Many windowing and data entry features.			SoftCode	405	405	
PANEL Plus II Roundhill 129-026	495	429	Bottleworks 3181-001 Screen editor and code generator works with several languages. Data validation and range checking. Includes one template for C, BASIC,	195	195	
Screen management library includes data entry, menus, windows. Includes screen painter, code generator, full library source. Per-			dBASE, Pascal, Fortran, dBXL/QuickSilver, Modula-2, Basic Btrieve, or C Btrieve.			
programmer pricing. C Worthy Interface Library			Specify language. Saywhat?!			
Solution Systems 732-171 Includes interactive screen designer - cwARCHITECT, to develop user	449	379	Software Science 1098-001	50	45	
interface without recompiling or linking. Features full mouse, keyboard support, buttons, color customization, internationalization, many menu,			Stand-alone tool set for creating screens for menus, data entry, data display, help panels, "slide shows." Display screens through any programming language with one line of code. Also can create screens to			
window and form types, enhanced support for CUA-compliant applications. Graphics mode and PCX file support.			be displayed directly from keyboard and batch file scripts.			
Works with MS, Turbo C, and Turbo C++. C Worthy Library w/source			HI-SCREEN XL Professional Softway 781-001	325	289	
Solution Systems 732-169 C Worthy with source code to the libraries.	649	549	Creates and manages windows, menus, data entry screens. Graphics and mouse support. Mix text and graphics on same screen. No royalties. Supports most popular compilers.			
cwARCHITECT source	500	540	MODULA-2			
Solution Systems 732-173 Source code to cwARCHITECT, the application generator that comes with the C Worthy Library.	599	549	Solid Windows Professional Solid Software 2716-008	495	440	
Graphex			Includes Solid Windows. Screen Painter creates menu prototypes without writing code. Library with mouse support, vertical scrolling, context-			
Vermont Creative 169-061 Use Vermont Views output in CGA/EGA/VGA/Hercules graphics modes.	149	139	sensitive help, accelerator keys, virtual memory system for menus. Many validated data entry fields; support for user-written. Use DOS country info			
Save/restore graphic images overlayed by windows. Use the graphic functions provided with your compiler or with Essential Graphics, Metawindow, or Halo to draw on the screen within your application.			for international program support. Available with source.			
Available with source.			VOICE AND FAX BOARD PROCESSING Libraries for using and controling voice and fax boards.			
Vermont Views w/ Designer Vermont Creative 169-035	495	469	See also Modems and Fax Boards; Voice Boards			
C-language user interface library for data-entry forms, menus, windows, help, and keyboard handling. Interactive editor allows creation and modification of data-entry forms and menus. Code written with Vermont			Multi-FAX ITI Logiciel 3323-008	199	189	
Views fully portable between DOS, OS/2, UNIX, XENIX, and VMS. Source versions available.			Library of routines to receive or send faxes within applications. Uses CAS specifications (Intel, SpectraFAX, DCA). Up to 4 boards in a single PC. Can be used with Multi-Voice or stand-alone. Source code and examples			
Specify MS 5.x C, MS 6.0 C, Turbo C 2.0, Turbo C++. Instant Windows/DOS			included. No royalties. Supports Turbo Pascal, Turbo C, and Microsoft C.			
Winsoft 2609-002 Generates code for SAA user interfaces with data validation, scrollable	249	201	Multi-Voice	500	470	
tables, dialogs, mouse, menus, buttons, icons, scroll bars, combo boxes/choice lists, directories, text file display/editing, color and error			Over 150 routines to write voice applications for Dialogic or Rhetorex speech boards. High level routines to play numbers, date in English,	539	479	
message support. Port across Windows, OS/2; connect to communications, SQL, dBASE, and BTrieve.			French, and Spanish. Supports up to 48 phone lines in one PC. Integrated multitasking kernel. Source code and examples included. No royalties.			
Requires MS C 5.0 or higher. C++			Available for Turbo Pascal, Turbo C, Microsoft C.			
C++ Windows Toolkit	200	100				
Magna Carta Interface library provides multiple overlapping windows through user extensible classes. Completely object oriented. Virtual screens, menus,	200	189				
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 string+, set operations, relationals,
- √ all control constructs difficult ones array cross-sections, case, for, goto, if, repeat, while, with, halt, and exit,
- √ intrinsic functions --plus extensionsscreen I/O, e.g. gotoxy,clr, strings, e.g. copy, concat, insert, delete, length, pos, str, val, file operations, e.g. assign, blockread, blockwrite, close, eof, eoln, filepos, filesize, read, readln, reset, rewrite, seek, seekeoln, seekeof, write, writeln,
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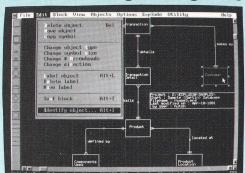
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See feature article in March 1991 Microsoft Systems Journal (pg 49)

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Yourdon/Constantine, and Chen/Martin methods. Features dBASE III+ export, chart linking, process editor, and DTP support. Requires MS or compatible mouse; Hercules, EGA, or VGA. EasyCASE Plus Professional Pack Evergreen CASE Tools 2066-007			ObjectCraft Converts object-oriented program diagrams into commented, ready-to-compile source code in C++ or Turbo Pascal. Create objects, establish connections between objects, associate Dbase database information with objects, and more.	399	379
Evergreen CASE Tools Includes same features as EasyCASE Plus. Adds DFD level balancing and diagram rule checking. Identifies objects used inappropriately, checks for correct definition of composite data structures and elements. Requires MS or compatible mouse; Hercules, EGA, or VGA.	395	359	Layout Objects 3324-001 Menu driven program generator. Generates code in BASIC, C, or Turbo Pascal. Creates windows, menus, icons, and graphics. Includes paint,	300	239
Design/OA Meta Software 1294-004	7,500	C 500	help maker and desktop; new PatchWorks utility for updating. PRO-C with Workbench		
C graphics application development tool that builds systems modeling tools using windows. Develop CASE, CAD/CAE, object-oriented programming, or simulations. Create front ends to databases, code generators, networks, or data processing systems. Requires MS Windows SDK, MS C, mouse.	7,300	0,300	Pro C Corp. Menu-driven C code database applications generator. Features data definition, screen, menu, report generator, and multifile batch update modules. On-line help. Supports most popular databases. Runs under MS-DOS, QNX, XENIX and UNIX. Includes library source code.	795	735
Personal-SELECT/YOURDON Select Software 3903-002	995	925	UI2 Developer's Release WallSoft Systems Dbase screen design tool consists of screen painter, and code generator.	595	449
Single user full function analysis and design tool for the Yourdon methodology with Ward-Mellor and Hatley extensions. Includes data flow diagrams, state transition diagrams, entity relationship diagrams, structure charts, and data dictionary.			Features complete screen control, reports, object-oriented template language w/compiler, relation handling, language independence, more. Also comes with 25 sample templates. Supports all dBASE dialects and C.		
BestChoice3 Sterling Castle Assists in any problem requiring alternative analysis. Useful for	99	89	Ul2 Touch & Go Wallsoft Systems 212-011	395	199
determining program design specifications, features to incorporate, product evaluations, purchase considerations, personnel review, etc. Logic Gem Sterling Castle 303-014	149	139	Dbase application design tool consists of screen painter and code generator. Features complete screen control, reports, relation handling, language independence, more. Templates provided for almost any application. Supports dBASE III+, dBASE IV, Foxbase, FoxPro, Clipper, Ouicksilver, DBXL.		
Decision table based logic processor and program code generator for C, BASIC, Pascal, FORTRAN, COBOL and dBASE programmers. Eliminates coding errors to lower debugging time. Documents logic to asure good communications between designer and coder.	149	133	CASE/C-GEN WorldWide Software A 4/GL application generator producing standardized, accessible, efficient and truly portable C source code for UNIX and VMS environments.	2,000	1,850
CODE GENERATORS	10000	Charles of the	COPY PROTECTION		
Tools for generating source code from a user's specifications. Often used f database applications. See also CASE Tools; Diagrammers and Documentors; Database Managen Dbase.		10	Combination of software and hardware tools used provide copy protection protection for applications. Used to prevent software piracy. Techniques includes reialization, and use of hardware plugs. See also Security Hardware and Security and Virus Protection.		
Zachary API 2078-001	495	299	CodeSafe-File Option		
Clipper code generator. Exploding screens, up to 8 menu levels, switch between indices, attach any number of subsidiary files to active file, report generator. Error checking, on-screen help, scroll through files or enter key value. No template language.	493	299	EliaShim Microcomputers Data file copy protection. Also protects updates and any add-on products to original system. Encrypts supplemental data files, graphics, fonts, utilities, or templates so they run only with original software; copies run by others are unusable. Includes master and 10 Protection disks.	150	139
Artful Two Artful Application 1413-003 Dictionary driven, multitable data management engine toolkit for Clipper. Includes function library of over 450 modules for query routines, relational find, user-customizable browse windows, array management, DOS interface, string management, verification of indexes, date and time processing and more.	300	289	CodeSafe-HD EliaShim Microcomputers Disk-based copy protection. Surrounds original code with undebuggable shell; original code is fully encrypted. Diskettes are uniquely formatted and serialized. Hard disk installation also available. Includes master disk and 10 Protection disks.	150	139
Genifer Bytel 670-003	395	289	Codetrack EliaShim Microcomputers 1799-029	250	239
dBASE III applications generator produces data entry screens, reports, menus, maintains data dictionary for databases, fields and layout file. Prototype quickly, then develop finished applications with consistent user interface. dBASE III Plus support. Supports dBASE and dBASE clones.	393	209	Copy deterrence system. Rather than copy protecting, it encodes program with original user's name and address upon installation or initial execution. Any copies made display original user's name and address in large letters when program starts, thus deterring unauthorized copying. DemoSafe		
R&R Code Generator Concentric Data 308-008 Generate dBASE report programs automatically from R&R Reportwriter reports. Supports multifile relations, free-form page layout, word-wrapped text, complex calculations, totals/subtotals, sorting/grouping, form letter data merge, complex queries, user defined functions, print attributes.	149	129	EliaShim Microcomputers Protects demo versions of software by limiting number of executions. After preset number of executions is completed, program is automatically locked. Only a unique password from developer releases program from preset limitations. Includes master and 10 Protection disks. Memo Plug Starter Kit	150	139
Requires R&R Report Writer. STAGE IS Technology Dbase code generator. Object-oriented screen design, prototyping,	395	379	Has nonvolatile 8K read/write memory incorporating double key encryption. Store data, set and change passwords, limit executions, determine accessibility and more. Reusable and can store number of codes, enabling single plug to protect several software applications.	150	139
application simulation. Includes template language compiler with precompiled library support, text file I/O, 2048 UDFs, 60 field attributes, array functions, and MAKE and MAKEFILE generator.			MEMOPIUG Plugs and Master EliaShim Microcomputers 1799-013 CodeSafe key device protection with read/write memory. Includes master diskette and 10 plugs.	500	449

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400		OMF object files; full control in segment placement; converts CodeView to OMF format; much more. MS C 6.0 compatible; includes C6toPROM.		
377	359	Software to assist in locating and eliminating errors in programs by allowing program at any point and examine the status of the computer. Object-level	debugge	rs do
420	399	Turbo Debugger & Tools Borland Tr7-087 Includes Turbo Debugger 2.0 with reverse execution, 286 protected mode, keystroke record/playback, mouse support. Turbo Profiler 1.0 shows how code and files are used, how calls are made. Turbo Assembler 2.0 100% MASM compatible. Multipass assembler generating optimized code.	150	119
295	265	dbug HJS Research 937-001 Source-level Dbase debugger. Features include breakpoints, watchpoints, tracepoints; examine and change values of variables. Supports dBASE, FoxBASE, and Clipper.	195	179
350	329	32 Bit Source Level Debug MetaWare 32bit source level debugger for Metaware High C versions 1.7 and 2.3 for extended DOS. Features dual monitors for graphics debugging, remote debugging via serial port, 80387 support, and more. Evaluate C expressions from command line, macro language uses command files with key recording.	295	285
other ma	chine	MultiScope DOS Debugger MultiScope 2657-002 DOS debugger. Run time/post-mortem debuggers trace program execution/examine state after crash. Browse program source, procedures, data in 14 window types; view data graphically. Full conditional breakpoints; remote debugging; dual monitor; 386/486 watchpoints. EMS or 386/486 driver to minimize size.	179	149
199	199	Supports MS C 5.1/10., Pascat, MASM, Logitech, Moa-2. Runs under Windows 3.0 but debugs only DOS applications 80386 Flex Cable Kit Periscope Company Flex cable kit for motherboards which cannot accomodate Periscope 386 Pod. For use with Periscope IV.	400	379
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495	479	Periscope I 512K Periscope Company 512K version of Periscope I. 35-022	595	529
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	2,800	Periscope II-X Periscope Company Source level debugger. Uses logical extension of DEBUG/SYMDEB commands. Local symbol support for Microsoft C. Supports CodeView link option for all Microsoft languages. Supports Borland's TLink, Sage's PLink, and DRI's LINK86.	195	169
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	400 377 420 295 350 TEMS other marating Sy 199 495 2,995 1,995 395	400 379 377 359 420 399 295 265 350 329 TEMS Other machine rating System 199 199 99 99 495 479 2,995 2,800 1,995 1,776	OMF object files; full control in segment placement; converts CodeView to OMF format; much more. **Mac Co & compatible; included C6toPROM.** DEBUGGERS Software to assist in locating and eliminating errors in programs by allowing program at any point and examine the status of the computer. Object-level in numerically, source-level debuggers allow you to trace through source code variables symbolically. See also Disassemblers; Diagrammers and Documenters. Turbo Debugger & Tools Borland 120 399 120 285 120 399 120 285 120 399 120	OMF object files; full control in segment placement; converts CodeView to OMB format; much more. MS C 6.0 compatible; includes CooPROM. DEBUGGERS Software to assist in locating and climinating errors in programs by allowing you to a program at any point and examine the status of the computer. Object-level debugge thin sumerically; source-level debuggers allow you to trace through source code and it variables symbolically. Turbo Debugger & Tools Borland Turbo Debugger & Tools Borland Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools Includes Turbo Debugger & Tools Borland Includes Turbo Debugger & Tools MASM compatible. Multipass assembler generating optimized code. Masm compatible. Multipass assembler generating optimized code. By Suprors Mask, FootRASE, and Clipper 32 Bit Source Level Debug MetaWare By Suprors Mask, FootRASE, and Clipper 32 Bit Source Level Debug MetaWare By MetaWare Includes Turbo Debugger for Metaware High C versions 1.7 and 2.3 for extended DoS. Features dual monitors for graphics debugging, remote debugging via serial port, 80.387 support, and more. Evaluate C verspressions from command line, macro language uses command files with key recording. MultiScope DOS Debugger MultiScope DOS Debugger for Metaware High C versions 1.7 and 2.3 for extended DoS. Features dual monitors for graphics debugging, remote debugging dual monitors 386/480 archapoints. EMS or 386/480 driver to minimize size. Supports MS C 5.116.0, Passent, MSM, Logitech, Mo

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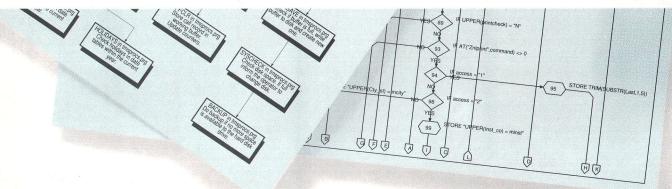
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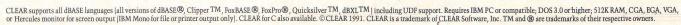


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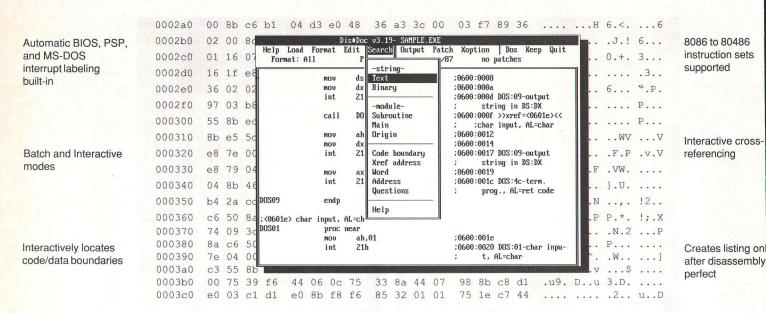
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Periscope Company 35-050 Software only debugger that has ability to use extended memory when running in a 80386/486 system with 386MAX or BlueMAX. Does not use any memory in lower 640K. Features include write-protected debugger,	295	259	Documentation utility creates cross reference listings, structured.outline and formatted code listings. Supports C, Pascal, Dbase, FORTRAN, BASIC, and Modula-2.		
use of 32bit memory, and more. Requires 80386/486 and Qualitas 386MAX or BlueMAX.			Tree Diagrammer Powerline Software Reads source file and creates tree chart showing function call hierarchy.	99	89
DIAGRAMMERS AND DOCUMENTORS Utilities for creating flowcharts and other diagrams of source code, such as be	olock and	d tree	Menu or command line operation. AsmFlow Professional		
diagrams; and for creating cross-reference indexes, comment libraries, differ and other documentation.			Quantasm Software 1200-009 Generates flow charts and call tree diagrams from assembler source files.	200	179
See also Profilers; Disassemblers; Translators. dAnalyst Gold Buzzwords International 966-057	205	400	Recursion detection, stack size determination, CPU timing and register analysis, flags questionable code, procedural cross reference. New features include macro expansion, conditional assembly, 486 support, enhanced		
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allClear Clear Software 873-008	300	269	and sizes, and wide variety of colors, patterns, line widths, and text styles. Clicking on shape can be used to bring up another chart or note. Includes text searching, reporting, and password protection.		
Create presentation quality flowcharts, procedure diagrams, decision trees, and organization charts from plain English descriptions. Multipage diagrams, definable symbols, text centering, more. Import from any word			C-Call Software Blacksmiths	59	59
processor or Lotus worksheet. Output to printer, postscript, and publishing applications. CLEAR+ for C			C and C++ program documentor: C-CALL is part of C-DOC tools. Creates a graphics "tree-diagram" of the function caller/called hierarchy; function caller/called cross-reference; and files-versus-function table of contents.		00
Clear Software Aids in documenting code by automatically drawing program flow charts,	200	179	C-CMT Software Blacksmiths	59	59
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Aids in documenting code by automatically drawing program flow charts, multi-level tree charts, formatted source listings, function cross references, and function prototype files. Analyzes program logic and reports logical			Software Blacksmiths C and C++ program analyzer and documenter. Includes caller/called hierarchy tree diagrams, file vs. module table of contents, detailed cross-	189	179
inconsistencies and syntactical errors. Supports all Dbase dialects. FOR STRUCT Cobalt Blue 790-005	005	769	reference of identifiers; reformatter, lister and logic action * diagrams; Path complexity and lines of code/statements/ comments for each function. Includes OS/2 version.		
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FORTRAN 77 with VAX extensions, and VAX FORTRAN with FORTRAN 8x extensions. All options compatible with FOR_C and FOR_C++.			C and C++ program documentor: C-LIST is part of C-DOC tools. Reformats source programs into standard formats; optionally numbers lines and pages; produces graphic "action-diagrams" on the listing to		
EasyFlow HavenTree Software 57-002	230	199	outline the logic/control structure within functions. C-METRIC		
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publishing programs. Any size chart up to available memory, including LIM expanded. Codan			lines with comments, code, and 'C' statements, and total lines. C-Ref		
Implements 1621-001 Builds database of information on large C programs. Shows relationship	395	349	Software Blacksmiths C and C++ program documentor: C-REF is part of the C-DOC tools. Creates a summary or detailed cross-reference of local, global, and define	49	49
between functions, variables, structures, fields, macros, files. Customizable reports, automatically generates system documentation. C Programmer's Toolbox Vol. I			identifiers. Creates a class-hierarchy tree-diagram for C++ classes. Symmetry IV		
MMC AD Systems 1102-004 Includes 12 tools. CPrint reformats and beautifies C source code into user	125	115	Symmetry Software 1447-001 Complete documentation tool for Dbase dialects. Unique Data Dictionary can store descriptions in predefined lines or up to a 64K memo for each	149	91
selected format; CFlow determines C program function hierarchy/flow and identifies runtime libraries used; PMon non-invasively monitors/profiles program execution including functions, system calls and BIOS interrupts;			field. Documentor for printing and reports. Supports dBASE II, III, IV, Clipper, and FoxBASE.		
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12 more tools including: ANSI C preprocessor, declaration statement translator/composer, file compressor/decompressor, file/directory	125	115	structure analyzer, execution profiler, program lister, Pascal formatter, binary file utilities. Source code included. Supports Turbo Pascal 4.0, 5.0, 5.5.		
archiever, UNIX file/directory symbolic link manager for DOS, memory usage analyser, file script executor, C sensitive string locator and more.			ASM Checker V Communications 924-023	180	175
and the first of t			Automatically identifiers and locates potential bugs in assembly source cont'd.		

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options for line numbers, headers/footers, flow lines. The Documentor WallSoft Systems Generates documentation for Dbase code. Creates block diagrams, tred diagrams, enhanced field listings, field and variable cross reference tables table of contents.		229	American Cybernetics Dynamically reconfigurable text editor; macro language; window edit up to 100 files (unlimited size); SAA or "Classic" interface style; EMS support; keystroke macros; mouse support; compile in editor; DOS shell; context-sensitive help; cross-directory search/replace; built-in support (most languages); undo/redo.	99	95
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Available for DOS and OS/2. CC-Rider Western Wares Pop-up symbol cross referencing and C language source analyzer Compatible with any text editor or MS-DOS application running in text mode. Specify C compiler.		85	Professional Editor Buzzwords International Menu-driven editor; can use same keystrokes as Wordstar or SideKick. Configure for Dbase or C or use as regular text editor. Compile from within editor; multi-windows supporting multiple open files and users; match pair searches; macros; split-screen with zoom; cut/paste between windows. Desktop publishing. Supports OS/2, DesqVIEW, Windows, Unix, XENIX, VMS, Sun.	95	92
CC-Rider Professional Western Wares Includes all standards features of CC-Rider and C++ Rider and detailed symbol cross-referencing features. Supports C and C++.	279	269	SPF/PC Command Technology Functionally equivalent to text editing capabilities of ISPF/PDF on IBM mainframes. Features true split screen; directory/member lists; on line,	245	195
DISASSEMBLERS AND CODE RECOVERY Generate assembly/source code from binary code in .EXE and .COM fi	lec Uca	d for	context-sensitive HELP; command stacking; 43-line EGA/50-line VGA support; hex and binary editing. German edition available.		
debugging and modification. See also Diagrammers and Documentors; Assemblers.	ics. Osc	20 101	VEDIT GreenView 25-013	69	69
Dis/Doc Professional R.J. Swantek & Associates Disassembles .EXE, .COM, .BIN, .SYS, and .PGM files and ROM or RAM memory with interactive ability to change code, data, or comments on line. Disassembles 8086 to 80486 with no file size restrictions. Utility for unpacking packed files and BIO's Admission for disassembling and		229	Features: with multi-file editing, binary file support, search/replace with regular expressions, integrated support of popular compilers/assemblers with automatic error tracking, pull-down menus, DOS shell, mouse support, undo, more. VEDIT+ GreenView 25-007	185	159
labeling BIOSs are included. Soft-X-plore R.J. Swantek & Associates Batch disassembles all file types up to 500K, fast (2 min/file), complete 8086/87 to 80386/387, seven passes. 20+ algorithms to separate code from data.		95	Programmer's editor with integrated support for compilers, assemblers, linkers, debuggers, and Make programs. Swaps out TSRs and network drivers during compilation. All features of VEDIT plus macro language to automate repetitive editing tasks, create custom editing functions. Professional Editor Intersolv 111-060	205	240
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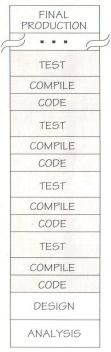
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Unlimited file length, 64K line length, split-screen editing, auto-indent, search and replace, online help, DOS shell, text layout, and more. Customize settings to fit needs. Supports mouse. Emacs UniPress 168-002	99 325	279	Knowledge Dynamics Script-driven product installer. Supports different fixed and floppy disk configurations, multiple target disks/subdirectories, on-the-fly file creation. Handles all DOS errors. Restrict user to install selected parts of product. Unlimited number of disks/files; unlimited file size. CONFIG.SYS/AUTOEXEC.BAT editor; full source.	250	219
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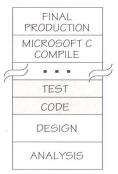
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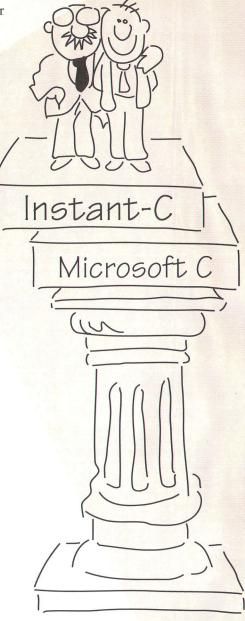
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LINKERS AND LIBRARIANS		e esterio	PARSERS AND LINTS		
Overlay, embedded systems and optimized linkers and librarians. See also Assemblers; Cross Development and Embedded Systems.			Syntax analysis. Parsers do general grammatical analysis; lints look for proba conditions such as type inconsistencies or unreachable code.	ble erro	neous
ALINK Accfin Software Overlay pre-link processor for Clipper. Allocates procedures to overlay areas and manages overlay procedure pool at link and runtime. Allow use of either Microsoft LINK or PLINK86plus. PLINK86plus commands are supported. Creates demo versions or licensed versions from	195	179	See also Text and Unix Tools; Translators; AI and Object-Oriented Libraries; L PC-lint 386 Gimpel Same as PC-Lint but uses extended memory. For use with more than 256 files or more than 50,000 lines of source code. Bound with DOS Extender.	ISP; Pr. 239	209
unmodified source code. Blinker Blink Inc Dynamic overlay linker for Clipper. Structures overlays and reduces program memory requirements. Dynamic overlaying of C and ASM profiler for performance analysis, compression of Summer '87 and 5.0	249	235	PC-Lint Gimpel Software Analyzes C source code and finds program inconsistencies and bugs. Finds uninitialized and unused variables, locates unusual expressions, more.	139	115
symbol tables, memory defragmentation, "burning in" of Clipper environment variables/serial numbers, creates demos. WarpLink Hyperkinetix Microsoft compatible linker with full dynamic overlay capability for	249	229	C Programmer's Toolbox/PC MMC Ad Systems 1102-003 Analyze program organization, preprocess and reformat source code, cross reference, lint, text file comparison, file compression/decompression, text extraction from files, and other functions. Works with all popular PC compilers, engineering workstations, and UNIX C compilers.	175	149
Builder, Clarion, Clipper, FORCE, MASM, Microsoft C, QuickBASIC, Turbo C, Turbo Assembler, and any other compiler which produces MS			PROFILERS AND PERFORMANCE ANALYZERS		
compatible .OBJ files. Error checking, mapping, readable error messages, and tutorials.			Turbo Debugger & Tools		
PLink w/LTO Intersolv 111-057 PLink86+ with automatic optimal overlay generation. Overlay Architect analyzes calling relationships to develop overlay structure. User can	495	439	Borland 777-087 Includes Turbo Debugger 2.0 with reverse execution, 286 protected mode, keystroke record/playback, mouse support. Turbo Profiler 1.0 shows how code and files are used, how calls are made. Turbo Assembler 2.0 100% MASM compatible. Multipass assembler generating optimized code.	150	119
modify overlays to accomodate interrupt handlers, multitasking, data overlays, more. Supports pointers to functions. User specification of overlay size versus program speed. Available separately without LTO. PolyLibrarian			Performace Tracer MicroQuill 5016-007 In single pass, traces entry point, exit point, and timing data for each instance of every one of functions exercised. Call tree history. Functions	295	259
Intersolv Create/modify/reconstruct/reorganize object module libraries. Supports Microsoft and Intel OMF object modules. .RTLink	249	229	by execution time and frequency. For each function, all parents and children with corresponding frequency. No source modifications, functions traced use proprietary chkstk. Available for Windows and OS/2.		
Pocket Soft Fast linker with advanced overlays, optional runtime libraries to eliminate duplication of language and user code in .EXE files. Dependency cross-reference between object and library files.	295	279	SegMentor MicroQuill Trace exact function level activity of applications. Algorithms are similar to those for auto-routing printed circuit boards. Explore solutions for optimal segment/section map. Applications are more compact. Minimize	2,795	2,295
.RTLink/Plus Pocket Soft .RTLink with CodeView support for advanced overlays and profiler utility for performance analysis at link time. No source code changes. Profiler	495	419	inter-segment (disk trashing) calls. Pragma directives for a new map provided in an include file. Available for Windows and OS/2. Charge		
comes with source code for read analysis utility to customize statistics reports. Virtual memory linker automatically executes program in available memory. OXYGEN Rational Systems 127-007	99	95	Solution Systems 732-167 Profiler with window-like interface. Single-keystroke accessibility to Brief. See profile as statistics, bar graphs, or time counts. Measure how long each routine takes to execute and how often it's called. Includes online help and mouse support. Support for MS C, QuickBASIC, MASM, Turbo C, C++, Turbo Pascal, and TASM.	99	95
Allows OS/2 version of MS C run under DOS and use any available extended memory. Helps eliminate out-of-memory errors during compilation. Does not affect source files or the execution of the resulting			PROTOTYPERS AND DEMO BUILDERS		1050
program. Works under all Windows modes and with all popular memory managers. Requires a 286+ machine, MSC, and available extended memory.			Used to create prototypes or demos. A prototype is an outline program to s interfaces will work on a full system. A demo is a slide show created fror program to demonstrate its functioning to potential users; it can also be used for See also Presentation Graphics; Menuing Systems and Shells.	n an ex	isting
MAKE UTILITIES Used on large software projects for recompiling only modified files and	relinkin	g the	Show Partner F/X		
system; often used with version control systems. See also Ve databases. These are more specialized routi nes than those handling, optimized to display and combine information from many records f	for dat	a file	Brightbill-Roberts 1104-002 Presentation system consisting of screen capture utility, graphics editor, script editor. Includes graphics, object, and font editors. Also includes test paint and graphics conversion routines. Add color, motion, special effects, and includes the statement of the properties.	395	295
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System V.3 Aug-Make and SunOS Make extenstions. Allows software building in mixed UNIX, DOS, and OS/2 environment using same make files. MKS Software Management Team Mortice Kern Systems 469-022	299	259	mouse, key, timeout, field data events. Pulldown menus. Instant Replay Professional Instant Replay Multimedia presentation package. Execute, memorize, and replay DOS programs. Edit memorized "replays", insert pop-up windows, sound	595	575
Combination of MKS Make and MKS RCS. SUMMER 1991 THE PR	OCD .	4 24 x	effects, more. Create interactive or automated slide shows and add cont'd.	Des	ne 69

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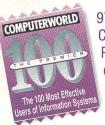
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Demo II Professional Intersolv Same as Demo II with three enhancements: ability to encrypt demos so they cannot be modified by unauthorized users, the removal of Sage signon notice from the beginning of the demo, the shrinkage of demo size up to 50%. Grasp 4.0 Paul Mace Software 413-014	995 349	895 319	all data types and operators, intrinsic functions, more. Royalties may apply. AB->C WorldWide Software A software package that enables you to take your Alpha BASIC programs and migrate them with very few or no modifications to generate C source code sysetm statements. The C source is portable across all ANSI C compilers. (OS2/XENIX/UNIX versions available.)	1,790	1,695
Desktop animation system with graphics programming language and paint program. Includes editor, effects generators, image capture, screen capture, and more. Support for Soundblaster. Incoporate Autodesk Animator sequences. No runtime fees.	349	319	UNIX EMULATION TOOLS Software packages that permit emulation of Unix functions under another operation as DOS or OS/2. See also Parsers and Lints; Unix and XENIX; Text Tools.	ating sys	stem,
TESTING SOFTWARE Tools for creating, executing, and reporting on test suites. Use test suites software performance; then use debuggers and other tools to remove bugs performance.	and enl		MKS AWK Mortice Kern Systems UNIX pattern-matching language for DOS and OS/2, compatible with specifications in "The AWK Programming Language" by Aho, Weinberger, and Kernighan (included). Introduction to C and prototyping	99	89
CAPBAK Software Research Captures and replays key and mouse strokes. Screen capture. Works with all graphics monitors. Key/mouse strokes are saved to an editable text file. SMARTS + EXDIFF	950	925	tool for larger programs. MKS Lex & Yacc Mortice Kern Systems 100% UNIX compatible compiler construction tools for DOS or OS/2. Act as program generator that takes descriptive input and writes program module which simplifies creation of languages and development of new programming language compilers by generating fast, compact, highly	249	199
Software Research SMARTS with EXDIFF. Automates file evaluation by comparing new screens and output files against previously verified versions. Mask windows, bytes, lines, and patterns from comparison, eliminating error messages. Auto Function Tester	1,050		portable code. Supports Pascal. MKS Toolkit Mortice Kern Systems Full implementation of over 150 UNIX utilities. Brings functionality of UNIX System V.3 to DOS or OS/2. Includes KornShell, vi editor, AWK programming language, cpio, crypt, diff, egrep, sort and tar.	249	229
Talis Computer Service 2044-001 Tests C functions by creating main() functions that run test cases through them. Does not affect source code, online help. Keep test data in source code, AFT database, or read in at runtime from any type of file. Specify Microsoft C or Turbo C.	199	120	Programming Tangages, Cyto, Crypt, unit, egrep, soft and tan. Available for DOS and OS/2. VERSION CONTROL SYSTEMS Source code librarians. Version control systems allow easy maintenance versions of a software project simultaneously, tracking the source and date of an	of mul	tiple
Ghost Vermont Creative Automatic testing tool allows delivery of tested software to end users. Make exact recordings of both software text sequences and screen displays in machine readable form. Re-execution of any set of tests at high speed. Differences can be interactively viewed.	195	189	source code files. See also Make Utilities; Testing Software. TLIB 5.0 Version Control Burton Systems Allows retrieval of previous versions, manual and automatic branching,	139	125
TEXT TOOLS			labels, check in/out locks, keywords, wild-cards, file lists, binay file support, WORM support. Version supporting DOS and OS/2 available.		
Text processing tools that work under DOS. Most are based on Unix utilities. perform such functions as pattern matching, file difference, and text formatting See also Parsers and Lints; Unix and XENIX; Editors; Word Processing an Desktop Publishing and Text Formatting. SpellCode Geller Software Labs. 1945-001 Spell checking tool for database and spreadsheet users. Checks spelling of	tools.		PVCS Professional Intersolv Source code revision control system. Logs revisions, allows unlimited branching. Includes security features. Provides storage and retrieval of multiple revisions of text or code. Maintains complete history of changes made to each revision. OS/2 version available.	495	439
text displayed to users in database programs and spreadsheet structures. Understands program and structure syntax. DELTA OPENetwork File/directory comparison tool similar to Unix diff. Fully scrollable windows, move back and forth between directories and files easily. Editor	100	95	MKS RCS Mortice Kern Systems Project management tool with a menu interface allows users to manage change easily by keeping complete history of changes to text or binary files including time/date, who made the changes, etc. Retrieve by date, release number, or by previously assigned name. Handles large, complex projects. Converts SCCS, PVCS to RCS.	249	229
window allows changes to be made to a file while comparing. TRANSLATORS Tools for translating source code in one language to source code in an converting between file formats. See also Parsers and Lints; Diagrammers and Documentors. FOR C W/ Binary runtime			Sourcerer's Apprentice Solution Systems System for managing changes to source code. Track each change made to a file. Document all changes. Recreate source file as it existed at any point in time. Prevent simultaneous updates to same source file. Supports branch/merge. Secure source files on a file server from unauthorized access and updates. Access from Brief.	499	459
Cobalt Blue FORTRAN to C translator. Supports MILSPEC and common F77 extensions. dBx/dBport Desktop Al Portability tool for Dbase. Translates application programs into C source code which can be ported to different machines or run on PC. Compatible with MS C and Turbo C. Supports FoxBASE and Clipper specific functions. File management utility provided. Source for function libraries available.	1,000		Available for OS/2 and Unix. Personal version available.		
				12 M 10 10 10 10 10 10 10 10 10 10 10 10 10	1.11



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Central Point Backup			See also Disk Optimization and Recovery; Debuggers; Cross Development an Systems.	d Embe	dded
Central Point Hard disk backup utility. Supports tape drives in Irwin and QIC 40/80 formats and all DOS devices. Provides data compression. Backs up data up to 3.5M per minute. Scheduler allows unattended backup. Command line driven and menu interface.	99	89	System Sleuth Dariana Technology Group Display and investigate all PC system information. Examine lists of installed equipment, I/O port address availability, hard drive setup, ROM	149	89
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utilities. Copy II PC Option Board Central Point Software 328-009	159	139	Landmark Floppy drive diagnostic, alignment, and cleaning kit for on-site maintenance and repair. For 5.25" and 3.5" disks.	249	209
Allows PC to read and write Macintosh data diskettes with one half-slot card. Commands similar to DOS disk commands. Requires 3.5" 1.44M drive. Fastback Plus			InfoSpotter Merrill & Bryan Detailed display of conventional, expanded, and extended memory. Timings of memory. Hardware interrupts activity display. IRQ level test.	79	75
Fifth Generation Systems Can backup to any logical device: tape drives, etc. Data compression, reads/writes simultaneously. PS/2 version available.	189	159	Display system CMOS, video and disk data area. Ability to run as TSR. Disk diagnostics. Network compatible, can display information on workstations. Remote Rx		
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Shadow Knowledge Dynamics Adds integrated backup and restore capabilities to applications. Data compression, CRC file integrity verification, incorporate machine readable documentation into existing product documentation. Command line, TTY, response file, full screen interface. No programming normally needed; full source included. No royalties.	299	259	Micro-Scope Micro 2000 3991-001 Operating system independent diagnostic software. Display and modify CMOS setup, displays hardware configuration, CPU test, memory test, floppy test, winchester test using BIOS tables, video test, serial/parallel port testing, and more. Low level formatting for all drive types including SCSI and IDE.	249	245
Norton Backup Symantec 1237-014 Full, incremental, and differential backup with three levels of both data verification and data compression. Point-and-shoot interface allows quick selection of files for backup and restoration. Restore data from damaged disks. Backup to multiple drives if on network.	149	119	Test drive (All Types) Microsystems Development Floppy disk drive diagnostic utility checks alignment, spindle speed, read/write ability, hysteresis, head azimuth, hub centering, and continuous alignment. Can also clean drives with any commercially available cleaning disk. Uses text graphics for simplicity, manual gives hints on remedies.	227	199
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extended with expanded, HMA, and high DOS for up to 23 MB of cache. Has automatic configure, application run-time logging, status screen, help, and disk performance testing utilities. PC-KWIK Power Pak Multisoft 630-003	130	119	Checklt TouchStone Software Corp. 1971-001 PC trouble-shooting utility. Reports on exact configuration, runs diagnostic test, and performs benchmarks. Tests CPU, memory, hard and	150	109
Includes Super PC-Kwik, RAM disks, print spoolers, screen accelerator with ReView feature and screen blanking, keyboard accelerator with ReDOS command-line editor.	.00	.10	floppy disks, comm ports, video subsystem, input devices, and printer. Reports on CMOS table, IRQ assignments, device drivers, and more. DISK OPTIMIZATION AND RECOVERY		
Super PC-KWIK Multisoft 630-001	80	74	Hard disk management, maintenance, optimization, and recovery of lost data. See also Operating System Enhancements; Memory Managers.		
Disk cache utility to improve performance for any PC, XT, 286, 386, 486, or PS/2 running DOS. Uses advanced disk cache technology to improve disk read and write throughput from diskettes, hard drives, and Bernoulli drives. Conventional, expanded, or extended memory. Supports cache sizes to 16 MB.			dSALVAGE Comtech Publishing Menu-driven diagnostic, recovery, and editing software for .DBF files. Repair all forms of damage, usually without need for separate output file. Un-zap file with single keystroke. Editors for search and modification of data or file header.	100	89

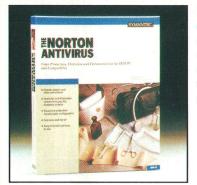
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OPTune Gazelle Systems 726-017 Disk optimization utility. Features three modes of file defragmentation, interleave adjustment via non-destructive low-level format, and media verification routines. Includes head-parking utility, DOS structure optimization, and protection against accidental formatting. PC World Best	100	85	FORMAT CONVERSION Utilities for converting files or data from one format to another, including from format to another. See also Communications Utilities. R Doc/X	om one	disk
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Aptec 149 129 Screen capture and print facility. Adjust size, propotion, rotation, or placement on page. Up to 16 million print shades supported on color printers, 256 grey shades on black and white printers. Quality prints of VGA screens. Works with many hardware and software combinations, 425 printers. Captures Windows screens.

Phips Maxa Corporation 3911-013 299 349 Color reduction, image processing and conversion program allows unlimited variations of conversion adn reductions between graphics formats and video modes. Display and manipulate 16-24-32 bit TARGA or TIFF true color images for inclusion in animation, editing or publishing

KEYBOARD AND BATCH ENHANCERS

programs. Dithering and color-space scaling.

Packages for improving and expanding DOS keyboard performance and batch file

See also Menuing Systems and Shells; TSR's and DOS Utilities.

Keyworks Advanced Alpha Software 2138-002 199 169 Allows for recording sequences of keystrokes and then playing them back with a single key. Powerful language with interface to programs written in other languages that can be used to create sophisticated macros. Features include an editor, creation of "text only" macros, screen save, file

encryption, cut/paste, more. Superkey 777-012 100

77 Record/playback keystroke sequences, security features. The Builder Hyperkinetix 149 129

Compiles existing .BAT files into .COM or .EXE files for speed and added security. Extends DOS batch language with over 70 new commands: full file I/O, screen control, system information, variables, and programming control. Includes integrated environment, on-line help, and linker. Distribute .COM and .EXE files royalty free.

Scroll & Recall Opt-Tech Data Processing Memory resident utility to recall data that has scrolled off the screen. Also maintains history of DOS commands, which can be recalled. Up to 27

Requires 64K. **ProKey Plus** Rosesoft 130 119

Macro processor allows key reassignment, unlimited definitions up to 30k characters long, popup menus, recorder mode, predefined sets for popular applications.

screens of data can be recalled or written to file.

Batcom Wenham Software 1646-001 Compiles .BAT files into .EXE. Extends DOS functions, including keyboard input, subroutines, while loops, and more. Protects source code. No royalties

ALL CHARGECARD

All Computers Memory coprocessor for the 80286. Manages memory like a 80386. Use extended memory to provide LIM EMS 4.0. Loads TSRs, files, buffers, and device drivers above 640K. Runs Novell and other networks in 0K.

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Dr. Switch Black & White Set of memory management utilities that free up conventional 640K.

Swaps RAM-resident programs to extended or expanded memory. V-EMM Gold

Fort's Software Provides EMS simulation using combination of conventional memory, extended memory, and hard disk. Provides additional virtual memory using hard disk. Transforms 96K of EGA/VGA into DOS memory. Loads

device drivers, TSRs, and buffers above 640K. Loader requires EMS 4.0, PS/2 80386, or C&T CHIPSet.

HEADROOM Helix Software

Increases the amount of memory available on your system by swapping out both TSR's and entire applications. Switch quickly between programs without having to save and exit. Supports LIM 3.2 and LIM 4.0. HEADROOM uses 50k of RAM. Also supports High DOS loading. Netroom

Helix Software Relocate device drivers, TSR's, Novell's IPX and NetBIOS, NET3/NET4 into expanded, extended, and High DOS memory. Supports many LANs: NetWare, IBM PC LAN, VINES, etc. DISCOVER utility displays information about hardware/software memory configurations. Four, 10user and 100-user licenses available.

Turbo EMS Merrill & Bryan Converts system resources on any PC, XT, AT, PS/2, or 386 into LIM 4.0 expanded memory. Includes SHUTTLE! which relocates TSRs, device drivers, network shells out of conventional memory on non-386. Reconfigurable without rebooting. Automatic spillover between various combinations of memory. Windows and DesQview support.

386MAX 5.1 Qualitas 123-004 Uses 386 page-mode features and extended memory to emulate LIM 4.0 EMS memory. Loads TSRs and device drivers, including most network shells, into high memory. Remaps slow ROM into fast RAM, determines

initialization and resident code sizes of fragmented high DOS memory. Fully supports Windows enhanced mode. Blue Max

Qualitas 123-010 All 386MAX capabilities with special enhancements for PS/2 systems. Uses BIOS compression to recover additional 80-84 KB more memory. Automatically analyzes and reconfigures PS/2 adapters to access largest possible blocks of usable high DOS memory. Instancing allows many TSRs to run under Windows.

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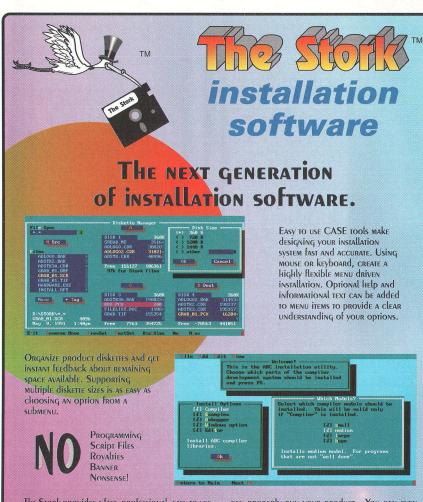
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Allows use of freed memory in EGA- or VGA-equipped PCs when not in graphics mode. HI386 Complete RYBS Electronics 2619-001 Up to 928K of real DOS memory. Use existing motherboard memory. For computer systems using Chips & Technologies NET, LEAP, TREAT	100	89	X-Tree Net Advanced XTree Company Version of X-Tree Pro for Novell NetWare. Features file attribute security. Use configuration program to limit viewing of files and command use to authorized users.	495	419
chipsets. Initializes up to 928K of DOS memory in real mode. No additional hardware required. Software Carousel SoftLogic Solutions 143-004	80	69	XTree XTree Company Menu utility for DOS. Provides user interface to command line DOS. Provides access to DOS applications.	39	39
Switching among applications, including spreadsheets, graphics, and databases. Resume applications where stopped. Use any kind of RAM for swapping, including LIM EMS, extended RAM, and even hard disk used as RAM.	80	09	XTree Pro XTree Company DOS shell which shows directories as a tree structure. Additional "Pro" features include support for up to 26 drives and 16,000 files. Network version available.	89	89
Memory Commander V Communications 924-020 Expands main memory up to 900K, while offering complete 386/486 memory management features. Full EMS emulation. Load TSRs and drivers into high memory. Both DOS and Windows 3.0 compatible.	99	89	XTree Pro Gold XTree Company Also includes point-and-shoot operations, EGA/VGA support, supports third-party editors, application menu for customized interfaces, split-screen windows, archive manager, keystroke history, hex editor, integrated	149	129
MENUING SYSTEMS AND SHELLS Programs to hide or enhance the DOS command line and allow more flexible fi	le handl	ing.	mouse support, and more. MULTI-TASKING ENHANCEMENTS		
See also Help Guides and Training; TSR's and DOS utilities; Keyboard Enhancers; Text Screen Libraries.	d and B	Batch	Applications that enhance DOS by allowing multiple applications to run simuly by providing easy switching between applications.	ltaneous	sly or
PreCursor Aldridge Company 1131-002	96	89	See also Operating Systems Enhancements; Memory Managers; OS/2; Othe Systems; Microsoft Windows.	er Oper	ating
Menu system containing tree-based graphic file managemnt utility with tracking and reports. Password security, parameter control, user help files, screen blanking, colors, hot key API interface for extension, more. Network compatible.			VM/386 IGC 1517-001 Create virtual 8086 machines that run concurrently on your 386. True multitasking capabilities. Includes graphics support, task scheduling	245	229
Tree86 Aldridge Company Tool for data migration and advanced file management. Pull-down menus for options. Features instant access to single or multiple drives, mouse and expanded memory support. Includes xcopy or move files across drives,	90	85	routine. Add-on for virtual network connections available. VM/386 Net Pak IGC 1517-004 Allows VM/386 virtual machines to share a network connection. Each	150	129
find, view, edit, tag, sort, text search, and backup. MultiBoot Bolt Systems OS/2 and DOS booting utility. Boots DOS or OS/2 without floppies. Automatically boots preferred system. For OS/2 compatible IBM PC AT,	50	50	virtual machine acts as if it had its own network connection. Requires VM/386. DESQview Quarterdeck Multitasking and windowing utility for DOS. Breaks 640K barrier by	130	119
XT, or PS/2. Requires DOS 3.0 or higher. PC Tools Deluxe 7.0 Central Point Software 328-008	179	149	swapping programs to disk or extended/ expanded memory. Runs Windows 2 or 3, GEM, and TopView applications. Runtime available, royalties apply. DESQview 386 Quarterdeck 847-001	200	400
Memory resident disk and file utility. Compress, backup, restore, rebuild, and undelete files. Also includes disk cache utility, DOS shell, 3 calculators, notepads, outliner, DES encryption utility, scheduler, background file transfer utility, and disk optimizer. The Emcee			Combination of DESQview and QEMM-386. Windows 3.0 compatible. DoubleDOS SoftLogic Solutions 143-003	70	189
Command Software Menu system with multi-level password security, path finding, system user log, data encryption, and context sensitive help. Uses 3K. User definable screens; hot keys; menu editor; screen blanking; auto start; more. Network version available.	90	85	Runs two concurrent application programs and switches between them. Perform print, plot, communication, or other task in background while running another program in foreground. Supports EGA, direct screen writers, and 1M of LIM EMS 4.0.		
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Detects known viruses, Hardware card prevents booting from the hard drive. Software provides logon screen for up to five users, keyboard and screen locking timed and warns user of viral activity, notes changes in executables which may point manual. Security switches provide boot protection, prevent attribute to virus activity, allows for safe testing of new software, and backs up and restores CMOS memory. changes and copying of .EXE and .COM files, and provide virus protection. TSRS AND DOS UTILITIES Security Guardian Command Software Useful utilities used at the DOS level, many of which are TSR (Terminate-Stay-Resident) 195 1275-003 250 Boot security controls access to hard disk. Directory locking sets user privileges. Timed logoff disables keyboard and blanks screen. System log See also Menuing Systems and Shells; Operating System Enhancements. tracks users, records idle time, records illegal access attempts. Restrict copying of files. Assign passwords and IDs to users. 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General disk access control device. Features 10 character password, limits drive to read or write only. Access or denial to parallel or RS232 port, format prevention, reconstructs disk configuration in case of failure. **IriCrypt**

Techmar Corp. 2967-015 Resident encryption utility that operates transparently to the user. Intercepts each DOS function call for disk reading and writing and 125

125

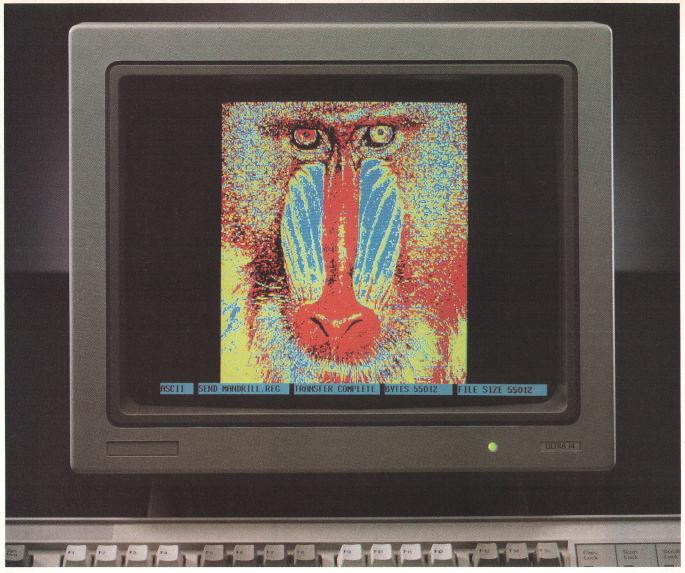
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[Perform any initialization needed before going to DOS resident]

af 10_key = -39DO TSR WITH "",0,""

[Your code goes here]

PROCEDURE TSR

PARAMETERS program, line, input IF DRACTIVE() DRSWAP()

ELSE

SET KEY af IO __ key TO TSR command = ""

drive__path = "Y:\USERS\USER6\TEMP"
paste file = "Y:\USERS\USER6\CLIPBRD.TXT"

ram = 640

hotkey = "{ALT} {FIO}" paste__key = "{ALT}P"

paste__mode = I ems = .T.

xms = .T.

timeout = 0

SAVE SCREEN TO your __scr

CLEAR SCREEN

AFFIX(paste file,paste key,paste mode

DRLOAD(command,drive__path, ram,hotkey, ems,xms,timeout)

RESTORE SCREEN FROM your __scr

ENDIF

RETURN

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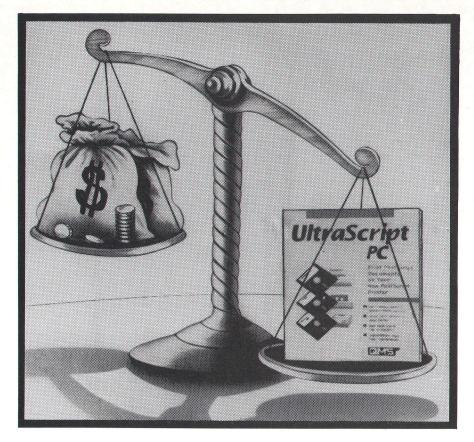
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System to symbolically solve algebraic, trigonometric, and Calculus problems. Includes high precision arithmetic, numerical and analytic equation solving, quadrature, 2-D and 3-D plotting, matrix algebra and calculus, 2-D display of equations, and menu-driven interface. Programming capabilities now available.			PRESENTATION GRAPHICS Graphics-based tools for improving reports, drawings, slides, and other presen Also paint and drawing packages. See also Graphics Libraries; Image, Sound, and CD Databases; Print Libra		
SPSS/PC+ Advanced Stats SPSS 207-001			Codes; PostScript; Video Hardware; Video Tools; Digitizers; Presentation Hard		
Addon to SPSS/PC+ that includes advanced procedures for factoring, clustering, non-linear and logistic regression, variance, reliability and more.	395	349	Fox Graph Fox Software Graphics package, imports DIF, SYLK, ASCII, ASC, .WKS, .WKI, .3DT, and SDF; exports ASCII and .3DT, can save graphs in .PCX, TIFF, .IMG,	295	249
SPSS/PC+ Base SPSS 207-017			and .SCR formats; calculated values, 16 2-D and 33 3-D graph types; customized 3-D graphics; complete color control.		
Provides data management, analysis, and presentation. Statistical procedures include cross tabulations, descriptives, frequencies, means and ranks, exploratory data analysis. Data management facilities. Imports, exports Lotus 1-2-3, dBase files.	195	189	Harvard Graphics Software Publishing Business presentation package that creates 21 chart types with extensive	495	399
SPSS/PC+ Statistics			formatting options. ScreenShow presentation and advanced drawing capabilities. Reads Lotus 1-2-3, Symphony, CGM, and ASCII files; exports PostScript, HPGL, LL, and CGM files. Extensive printer, plotter,		
SPSS 207-018 SPSS/PC+ addon extends statistical capabilities of SPSS/PC+ Base. Procedures include cluster, factor, reliability, t-tests, regression, and	395	349	film recorder, mouse, graphics card support. Includes drawing package.		
ANOVA. Requires SPSS/PC+ Base.			PROJECT MANAGERS Packages for scheduling, coordinating, and analyzing a wide range of projects.		10/2
StatGraphics STSC 131-005	995	819	See also TSR's and DOS Utilities.		
Complete interactive statistical graphics system. Performs over 250 statistical and analytical procedures with applications in engineering, quality control. R&D. marketing, finance, and physical and social	555	010	Project Workbench Applied Business Automatically outlines projects; offers six time scales; global, project, and	1,525	1,249

895 839 Automatically outlines projects; offers six time scales; global, project, and resource calendars; creates optimum project schedules. Resource Spreadsheet dynamically displays and updates resource data; supports multi- and sub- projects; Gannt/network diagrams; context-sensitive help; gateway to dBASE III Plus; more.

SYSTAT Systat

Complete interactive statistical graphics system. Performs over 250 statistical and analytical procedures with applications in engineering, quality control, R&D, marketing, finance, and physical and social sciences. Fully integrated with presentation quality 3D graphics.

Statistics, graphics and data management package that is completely menu or command-driven. Basic and nonparametric stats, covariance, cont'd.

OBJECTS WERE MOSTLY TALK. NOW THEY'RE HANDS-ON.

Everybody has been talking about objects. But until now, you had to be a C++ programmer with a big budget to get your hands on them.

Today, information *is* power. And the personal computer is enabling a transition of that power from computer professionals to "information professionals" whose primary expertise is in engineering, management, finance and production.

Until now, the software tools available to information professionals have been based on the notion of rows and columns, rather than on the more natural and powerful idea of objects. This meant these new professionals were left with useful information in a form they couldn't use.

Introducing Mind's Eye. A New Tool For A New Age.

Mind's Eye, the first object-based information management software system allows you to integrate the separate functions of business management principles, financial modeling, graphics and engineering. And Mind's Eye requires no sophistication in a complex computer language.

Instead of relying solely on cumbersome numerical data bases, Mind's Eye lets you translate that jumble of information into recognizable objects which link all the components graphically. So you can see issues and solutions in a comprehensive and coherent overview. Just the way your mind does.

Look at what Peter Coffee said in the March 4th issue of PC Week:

"Mind's Eye is a superior decision-support tool for vertical markets and in-house applications. Users will reap rich returns from their graphics hardware investment. The Mind's Eye screen provides a wealth of interactive feedback, far more than typical mouse/menu designs."

What You Perceive You Can Create.

With the simple point and click of a mouse, Mind's Eye allows you to create a system of objects quickly and easily. Then with its simple, yet powerfully articulate structure, you can describe their properties and relationships.

And the objects you create can be visually amplified with drawings. Pictures.

Or both.

You can also include free-form verbal descriptions of each object. And assemble these complex data structures into an application for those who maintain the database and derive information and analyses from it.

Mind's Eye allows you to create unlimited "what if" management models in business, manufacturing, engineering, production, quality management and sales beforehand. So you can test your vision. Change variables and analyze those changes. And control down the road what you have in mind now.

But the best thing about Mind's Eye is its simplicity. In an age of increasing complexity, Mind's Eye lets you get back to basics. With it's ability to seamlessly link large amounts of complex data into clear, easily accessed graphic objects, pulldown menus and easy-to-read project trees, you'll be able to use your computer the way you should have all along.

Who We Are Depends On Who You Are.

Because Mind's Eye is an extension of the way you personally retrieve, use and manage data, it can be quickly configured to your individual thought processes and tasks, informational needs, management style and corporate or business requirements. Whether you're a design engineer or system engineer or involved in financial modeling, project management, production, process control, quality control or LAN design, there are no limits to Mind's Eye's virtuosity. Or yours.

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Mind's Eye can now run your PC the way you want it to. At a price that's readily affordable only \$695.00.

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Give us your VISA or Master-Card number and we'll send out Mind's Eye right away. Keep it and we'll bill your charge card. Return it within 30 days, and you're free and clear.

Mind's Eye is IBM AT/PS-2 compatible (80286/80386/80486).
640 K RAM minimum required, 1 MB or more recommended.
EGA/VGA/8514A monitor.
PCDOS/MSDOS 3.X
or higher required.

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The power to link perception and reality.

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Applications	Fast	dits list	Price OU	800-421-8006 Res	if dats lis	Price OU
InstaPlan Standard InstaPlan Includes Tracker, NotePad, and PERT options. network diagram of InstaPlan project. Act	ivities are drawn as boxes	249	239	1-2-3 Version 2.01 Lotus 1917-001 The original 1-2-3.	495	349
containing selected data, with connecting connections. Agenda Lotus	1917-059	395	319	Lotus Business graphics for 1-2-3 data. Retrieve data from 1-2-3 via live link; enchance 1-2-3 charts with 3D effects, text charts, conceptual diagrams, and other types of graphics.	495	375
Project planning, brainstorming, or daily org structure as data is entered. Lets you create number of data views. Include notes up to 10t dates. Project Scheduler 5	e and modify an unlimited			Symphony Lotus Integrated package with automatic active link among all its aplications. Includes word processor, graphics program, spreadsheet based on 1-2-3,	695	619
Scitor Fast, graphic project manager. Intuitive user i of time, quick learning. All popular printers ar Time\$heet Professional		685	639	database, and communications functions. Reports can be printed using many formatting and printing options, including laser printer support. Includes Allways. Works		
Software Partners Time/expense tracker lets you track time a employees. Generate reports for managemen Corporate workgroups can easily consolidate	t or invoices for customers.	180	145	Microsoft Integrated program offers word processing, database, spreadsheet, and communications. Easy to learn and use. Compile 1-2-C	149	129
budget data. Complements a project manavailable. Harvard Project Manager Software Publishing Fast Track offers quick introduction to package	442-001	695	569	Resource Analysis Intl. 1008-001 Translates Lotus WK1 and WKS worksheets into C-language source files, then compiles the source into EXE files. Retains features of original spreadsheet program, including macros, commands, cursor movements, screen display, and more. Also security mode and hidden macros and formulas. Supports math co-processors.	495	419
indentifies project tasks in standard outline for Fast Track, Work Breakdown Outline, PERT PERT chart shows task network; Gantt chart sh Timeline	mat. Six planning methods: chart, Gantt chart, task list.			WORD PROCESSORS AND OUTLINERS Word processors, outline generators, thought processors, and other organizational aids. See also Desktop Publishing and Text Formatting; Editors; Print Control and		
Project management software. Routines for and reporting. Interface to popular spreadsheet SPREADSHEETS AND INTEG	ts and databases.	695	537	Presentation Graphics. KO-PILOT Insight Resource 2736-001	89	46
A spreadsheet is a basic columnar accounti spreadsheets with databases, word processors, and See also Database Management Systems; Account	ng tool. Integrated package I other tools.		bine	Keystroke-by-keystroke guidance for every WordPerfect feature. Allows use without WordPerfect manual or function keys. Includes LEARNKWIK which trains users in WordPerfect as they work. Training is immediate, as-needed, and repeatable. Specify WordPerfect 5.0 or 5.1.		
Baler Software Spreadsheet compiler turns .WK1 work executables. Supports coprocessor, all Lotus Add startup screen, choose from 4 styles of borders/colors on screen, add password secur help. Ten times faster than previous versions.	"@" functions and macros. customized menus, control	495	399	Word 5.5 Microsoft 502-157 Word processor with pull-down menus, dialog boxes, scroll bars, mouse support, etc. Network and OS/2 support built in, along with support for over 300 printers, spell checker, thesaurus, print preview, graphics import, links to spreadsheet programs, style sheets, glossaries, word count, more.	450	289
Baler XE Baler Software Extended edition of Baler. Allows linking of extended macro language and menu driven cor C, BASIC, Fortran, Pascal, or Assembler.		795	729	Writer's Reference Parsons Technology Online style guide and almanac. Suggests tips for organizing ideas before commiting them to paper. Explains proper use of grammer. Shows sytle options for formatting. Illustrates common word choice errors and suggests alternatives.	59	59
Quattro Pro Borland Fully 1-2-3 compatible WYSIWYG spreadsh manager to load larger spreadsheets into me memory. Includes 3D worksheets, presentat worksheet sizes, slide-show transition and sou Mouse support. Network ready.	emory. Also uses expanded ion quality graphics, large	495	415	Grammatik IV Reference Software 1253-003 Grammar correction utility shows errors in context, allows immediate correction of errors, runs directly inside selected word processors, mouse support, hundreds of grammar and style rules, user customizable and comprehensive spell checking. DOS, Windows, network, Mac, Unix versions available.	99	89
Quattro Pro LAN Borland Adds one additional user to Quattro Pro. SuperCalc5	777-135	395	329	WordPerfect WordPerfect Text/graphics integration, tables, pull-down menus, mouse support, equation editor, spreadsheet links, labels, mail merge, context-sensitive	495	319
Computer Associates Lotus 1-2-3 compatible spreadsheet with spreadsheet, high-quality reports, network and sideways printing, macro learn mode.		149	129	help, spell checker/thesaurus, macros, dictionary-based hyphenation, and toll-free support. WordStar 2000	405	210
R&R Worksheet Report Wri. Concentric Data Create, modify, or print WYSIWYG rep Symphony worksheets. Uses Lotus-style me reports to printer, ASCII files, or Lotus files fo	enus and commands. Send	149	129	Word-Star International Word-processor features advanced page preview and graphics program to insert charts, graphs, pictures, and spreadsheet files into documents. Includes various fonts, spell checker with phonetic look-up, thesaurus, key macros. Supports many printers. Utilities for mailing lists, communications, file conversion.	495	319
1-2-3 Version 3.1 Lotus Simpler and more powerful graphics. Disples spreadsheet in splitscreen. Multipage feature Query and extract data from dBASE III files uses extended memory, allows background pring Requires 80x86 machine with at least IMB acc	1917-015 lay both current graph and . View three pages at once. s. Many other new features, nting.	595	449	WordStar 6.0 WordStar International Similar to Wordstar 2000 with additional features. Supports scalable font printers. Includes multiple symbol sets, powerful style sheets.	495	295
1-2-3 version 2.2 Lotus Has all the features of 1-2-3 (version 3.0) expositioned for less demanding needs and able 640k.	1917-018 scept the multipage feature.	495	379			
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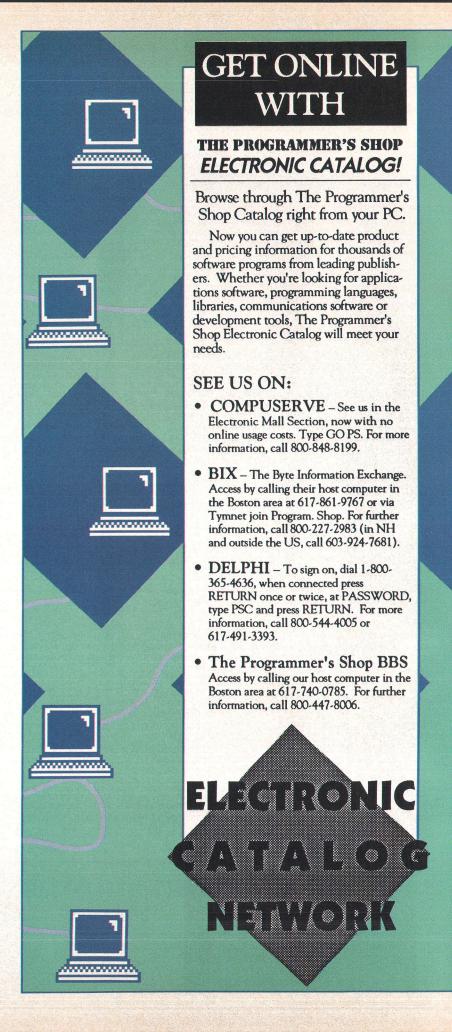
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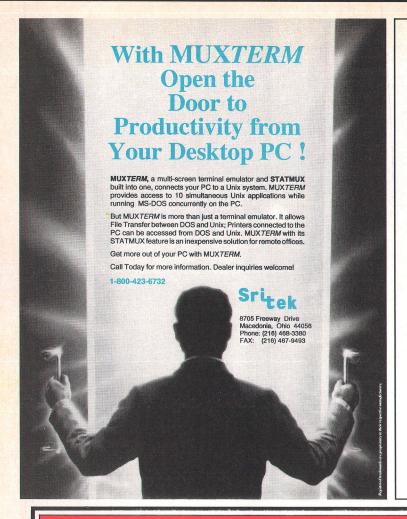
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Noise-resistant file transfers, scripting, PC remote control, background operation. Emulations include DEC VT220/100/52, Sperry SVT 1220, Data General D461/411/410 /200, Televideo TV 920, Ampex D80, ADM Remote control with pull-down menus with keyboard or mouse control. Supports mono, CGA, PS/2 model 30 CGA, EGA, VGA, and Hercules. Passwords, automatic call-back to predefined numbers, session recording, background file transfer with file compression. All functions of Mirror III,		
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ProComm Plus Net DataStorm Technologies Network version of ProComm Plus. Stewark version of ProComm Plus.	195	179
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Advanced communications package. Supports up to 15 sessions in windows, several terminals and protocols. Programming language for applications development. Triton Technologies	95	89
Crosstalk XVI Automates PC-to-PC communications. Scripting and scheduling communication language. Host PC requires SESSION/XL. Each remote	33	J J
DCA/Crosstalk Menu- or command-driven communication program that links PCs to other PCs, micros, mainframes, or info service. Route incoming data. 195 129 requires CO/SESSION. COMMUNICATIONS: REMOTE		
Displays data sent and received. Software for allowing users on a network to transmit and receive data from other controls.	er netv	vorks
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PCANYWHERE IV HOST DMA 2117-011 129 File transfer software utility, includes six-foot cable to connect computers via their parallel ports. A data management utility is included to provide on-screen viewing of two directories on different computers, at the same	00	73
Add additional systems that only need to be hosts. pcanywhere iv Host/Remote time. Files may be copied, backed up, viewed, or deleted. Included program enhances copy operations.		
DMA Control a host PC. Features bi-directional file transfer in backround/foreground, VT220 emulation, speeds up to 115bps, automatic graphics translation, call logging/session record and playback, voice/data spitifier. Can be loaded in higher memory. Total Troll Access any PC or peripheral on LAN with security, run programs, use all local and network resources, contact other PC in middle of application, extend to remote networks with asynchronous remote access package.	350	284
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Microcom Software Data communications package that allows for communication links with other PCs and mainframes, on-line services, includes high speed file other PCs and mainframes, on-line services, includes high speed file See also Communications: Applications.		
transfers even in background, scripting capabilities. Emulates most popular terminal types and supports most file transfer protocols, modems, and emulation boards. EXTRA! Extended for DOS Attachmate Corp. 1523-004	425	415
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Handles remote and automated communications. Full view, control of remote PCs running Close-Up Customer. Share screens/keyboards with network or standalone PCs. Access to DOS, run application programs, cont'd. 1921-010 1921-010 245 Such as SEND/RECEIVE (IND\$FILE), output devices and much more. Uses as little as 44k and takes advantage of EMS memory, allows up to 4 active host sessions at one time.		



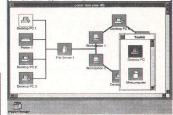
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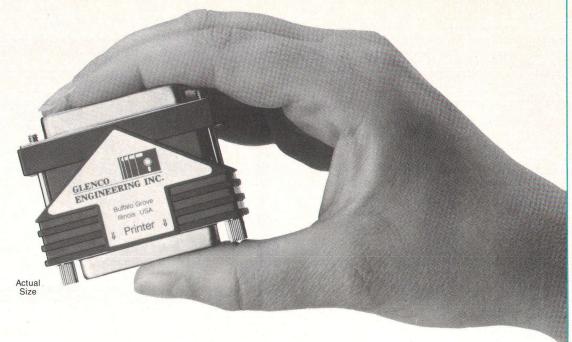
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COTERM/220 Coefficient Systems Emulates VT220/100/101/102/52. Kermit, XMODEM, ASCII, and proprietary protocols. Scrollback buffer, toggle between DOS and screen, soft keys, 132 columns with scrolling, and backround file transfer.	245	205	CONNECTIVITY Products that provide connectivity solutions such as communications between machines and IBM mainframes or TCP/IP connections to DOS micros. Interdrive		
VistaCOM V Control Data Communications product for async, TCP/IP, or DECnet. Has 21 emulations, including: TEK4105, Televideo 925/95/970, VT220. KERMIT, XMODEM, and proprietary file transfer protocols, DOS hot key, diagnostic capability, script language, national character set and LAN	200	169	FTP Software Provides NFS for PCs. Uses PC/TCP kernel to implement TCP, IP, and UDP networking protocols. Mounts up to four InterDrive filesystems. Implements password checking before allowing access to remote host. Requires PC/TCP and network card. PC-Interface DOS Bridge	100	89
support. Also links PC to PC. EM4105 Diversified Computer Emulates Tektronix 4105 color graphics with some 4017 extensions, 4010/4014, VT640 and DEC VT320/220/100 terminals. Supports 640x480 resolution, displays up to 16 colors. Pan/zoom, mouse support,	359	216	Locus Computing DOS portion of PC-Interface. Supports all features of PC-Interface Server. Emulates VT220 and VT100 terminals. Fully compatible with Microsoft Windows 3.0. Requires PC-Interface Server on UNIX host. PC-Interface Server	235	229
and high resolution color plotting/printing. Includes all EM320 functions with Novell network support. Versions for PC/TCP, DecNet, Sun PC/NFS, Net1, 3-COM. TGRAF-07 Grafpoint 3081-001	995	919	Locus Computing 1978-016 Transparently integrates DOS-based PCs and UNIX systems. Supports virtually unlimited number of PC workstations. Integrates DOS and UNIX files into single file system. Use DOS or UNIX commands to access any file on host. Includes National Language Support for international installations. Non-dedicated UNIX host.	350	340
Emulates Tektronix 4010/4014/4105/4106/4107/4109 and VT52/VT100/VT102. Menu-oriented setup; DOS hot key; Kermit, XMODEM, ASCII; file save, vector save, pixel save, restore; up to 16 colors; compatible with over 30 high-performance graphics boards; resolution up to 1280x1024; many graphics features; RS-232 or modem. Requires disk drive, supported graphics card (256 colors for Mac). For DOS: minimum of DOS 2.0 and 256K. For Mac: Mac II or Mac SE30, 2M.			DATABASE SERVERS The heart of the client-server database management functions over the network. See also Database Management Systems; Network Operating Systems; Lang Networks section. Faircom Server SU	uages is	n the
ICE.10 James River Group Three programs: pop-up WYSE 60/ANSI/VT100 terminal emulator that allows a concurrent DOS application; DOS/UNIX file transfer utility; and Unix shell that emulates DOS command line while still accepting Unix commands.	295	249	Faircom Multi-threaded, transaction processing server can be used alone or lighted to application. Features full commit and rollback, complete logisting, restart and disaster recovery, passwords, access security, deadlock detection, read/write locks, more. c-tree Plus provides the full client side interface. Versions available for 5, 12, and unlimited users.	49	45
ZSTEM 220 KEA Systems 912-007 Adds VT220 support to ZSTEM 100. National/multi- national support, downloadable fonts. Integrated network support. ZSTEM 240	150	135	Faircom SQL Server SU Faircom 45-017 Complete ANSI X3.135 1986 level 2 SQL engine coupled with the features in the standard Faircom Server. It provides advanced SQL access to any information managed by the Faircom Server via embedded or	79	75
KEA Systems Adds VT240/1 support to VT220. Includes VT340 ReGIS, Tektronix, and pixel graphics support. SmarTerm 240 Persoft 108-008	295 345	269	interactive SQL calls. c-tree Plus provides the full client side interface and development kit for this SQL server. Versions available for 5, 12, and unlimited users. Netware SQL Novell 141-020	595	519
Emulates 16-color ReGis graphics of DEC VT340, VT240, and VT241 graphics terminals; VT220 and VT100 text terminals; and Tektronix 4014 graphics terminal. Includes file transfer, LAT, programmable softkey shortcuts, keyboard remapping, menu-driven interface. Multi-user versions. EGA, CGA, VGA, Hercules, 132 col.	343	269	Database engine for networked systems. Reduces network traffic by processing data at the server. Also supports databases distributed over multiple servers, SQL security levels, fault tolerance. Supports DOS and OS/2 workstations. Requires NetWare 2.1 and Btrieve 5.0 (or later)		
Requires asynch I/O board, cabling, 132 column. SmarTerm 400 Persoft Emulates DG's D410, D400, D214, D214, D211, D210, D200, and D100 text terminals. Features include softkey language for automatic log-ons and file transfer, multiple configurations, and host remote control. Supports VGA, EGA, CGA, Hercules, 132 column.	225	179	Utilities for diagnosing and monitoring performance of basic hardware and soft memory, hard disk, and low-level codes. See also Disk Optimization and Recovery; Debuggers; Cross Development an Systems. View 232 Blaise Computing 269-028		1 1 1
Requires asynch I/O board with cabling. MuxTerm Sritek 5023-001 Allows connecting a DOS PC to a multi-user host through an RS-232 connection and running multiple UNIX applications simultaneously.	475	459	Inspect, monitor, and capture data over any asynch communications link. Display data in different formats including ASCII, hex, and mnemonics; store transmitted data on disk; simulation mode and on-line help; includes cable and source code. ARC Monitor+	109	179
Access up to 10 different UNIX applications and concurrently run any non-graphics DOS application by multiplexing up to 16 tty sessions over a single physical connection. Error correction. Reflection 1 Plus Walker Richer & Quinn Emulates HP 2392A, 700/92 and DEC VT102 terminals, Adds forms	369	339	Brightwork Development 1254-009 LAN problem/performance analysis. Determine capacity, overload status, graph network activity, test individual PCs for card, cable, or memory failure, set filters to test subset of stations. For use with ARCnet networks. E-Monitor	295	252
Emulates HP 2392A, 700/92 and DEC V1102 terminals. Adds forms caching capability of the HP 2624B, 2394A and 700/94 terminals, and a typeahead buffer. Includes KERMIT, XMODEM, and proprietary file transfers, runs in background, includes script language, is network compatible, and can backup/restore files to/from host.			Brightwork Development Monitor activity and packets on Ethernet network card to help identify faulty cards, determine peak network usage. Analyze percentage of time nodes are active, amount of data transmitted, amount of data corrupted by collisions on network. Available for arcnet networks.	295	256
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ities; Keyboard	d and B	atch	
726-006 directory map es, select and lp. Four user	249	159	
1261-006 de execute any om within any etly. Suspends were memory	495	429	
1261-001 york standards. windows, and Create bullet	495	459	
4036-002 server. Offers s, plus usage unique menus le menu items	150	139	ANS
1969-001 ory overhead. om to display DE and SHOW	395	319	ım & L
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g of data to exte	rnal med	dia to	Ŭ
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LAN Assist Plus Fresh Technologies Allows authorized users to view, monitor, control, and assist any workstation on the network. Provides complete access to the screen and keyboard of other workstation, even across bridged servers. Full graphics	295	279	allows up to 32 users on single CPU with DOS. No LANs or multi-taskers. Template menu design for custom presentation. Electronic mail, text file database, file transfer, and questionaires. Versions for single line and 32 lines available. TDBS for TBBS 16-Line		
support. Requires a Novell network. Net Vision Fresh Technologies Network analysis tool to view Novell network usage, efficiency, and performance in real-time or user specified time frame. Monitor 38 network characteristics, show data in graph/spreadsheet format.	495	439	eSoft 2710-013 Data Base System (TDBS) expansion module for TBBS. dBASE III Plus compatible compiler and run-time allows multi-user programs. Up to 32 remote or local users on single PC with DOS. No LANs or multi-taskers. Transparent file sharing and shared screen updates for multi-user coding. Automatic communications support. Requires TBBS. Single and 32 line versions available.	995	795
Remote Console Fresh Technologies Allows NetWare console operators to view screen and access keyboard of file server console from any LAN workstation. Execute network commands from workstation. Uses 2k. Operates with Lan Assist Plus.	249	229	Major BBS Bulletin Board GALACTICOMM 1967-001 Fully functional bulletin board system for up to two simultaneous users (three users including the system operator). Includes public posting areas, private e-mail, teleconferencing, file upload/download, and questionaires. Source and upgrades for up to 64 users available directly from manufacturer.	59	55
ViewComm Greenleaf Software Serial data analyzer lets you examine data and control signals live, examine data previously sent/received, scan for data or errors, start or stop recording when triggered by a preset string or control signals. LANtrack	399	379	MENUING SYSTEMS AND SHELLS Programs to hide or enhance the DOS command line and allow more flexible and better interfacing to network software. See also Help Guides and Training; TSR's and DOS utilities; Keyboard		
Network Management Realtime server monitoring utility. Warns system administrator if a volume is running low on disk space or directory entries, a high number of physical disk errors or LAN I/O errors occur, server load is high, cache or channel performance is low, file system or I/O performance is poor, disk mirroring status, and more.	595	565	Enhancers; Text Screen Libraries. QDOS Network Manager Gazelle Systems Tage 100 Hard disk file management for LANs. Features pictorial directory map and editor. View directories, copy, move, sort, find files, select and execute DOS commands, set file attributes. Online help. Four user license.	249	159
NETUTILS ONTRACK Computer Systems Diagnostic, maintenance, and recovery utilities for Novell file servers. NetFile reduces down time and data loss by allowing backup of files off downed sserver. NetScan checks file structures and detects bad areas. NetDisk allows editing of sectors in Hex or ASCII.	100	89	LanSelect LANSystems Memory resident menu system using 4K RAM to load and execute any program. Allows users to pop up menu of programs from within any application or to use hotkey to execute other programs directly. Suspends current program and executes any option selected as if it were memory	495	429
Serialtest Progressive Computing Serial data analysis. Interactive source mode; timestamping; triggers; capture to disk; display in hex; ASCII, EBCDIC, Baudot; autobaud; graphic signal display; Source and monitor modes; data scope and breakout box; timestamping; capturing of signal state changes in buffer; Carbon Copy and PS/2 compatibility.	295	269	resident. LANShell LANSystems 1261-001 Fully customizable menuing system supports all major network standards. Create pull-down and pop-up menus, entry forms, selection windows, and password security. Support for IBM extended character set. Create bullet proof front ends for your network.	495	459
Saber Meter Saber Software Monitor LAN access and usage by user and application. Records application name, status, server, login ID, station number, dates and times of access. BROWSE allows for queries, reports and graphs on the collected statistics. Breakout II	195	179	KeyWord Commander II/Net Logical Solutions Menu shell network version is an unlimited user license per server. Offers all of the features as the PC license, on network drives, plus usage tracking, system administrator "master password" override, unique menus per user or standard network menus and updating of single menu items	150	139
Asynchronout communications debugging tool. Allows user to capture or send data while controlling and monitoring line signals at baud rates up to 115K. Test single devices on COM1 or 2 or tap in between existing communications circuit. Auto baud detection, many display methods (ASCII, hex, EBCDIC, more). Includes cable to run between two RS-232 devices.	249	209	from DOS. Saber Menu Saber Software Creates custom menus for users or groups with no memory overhead. Includes LOGIN scripting system, Broadcasting system to display messages, ability to display and change session options, HIDE and SHOW options for files. Multiuser version.	395	319
E-MAIL AND BULLETIN BOARD SYSTEMS			NETWORK ARCHIVE AND BACKUP		
Electronic mail is the sending of text messages through a network to other network. Bulletin board systems allow multiple users to share and exchange Bulletin boards are often used for order entry or technical support. See also Communications Applications.	Utilities for compressing data to conserve space and for copying of data to exte protect against loss. See also Backup in the Utilities section.	rnal med	lia to		
CC:Mail Platform Pack CC:Mail E-mail system trasparent across different networks, operating systems, and hardware platforms. Store and forward structure reduces network traffic and disk requirements. Menu-driven interface, context sensitive help,	195	179	Cheyenne Utilities Cheyenne Software Restores crashed servers, helps create new ones, and upgrades NetWare versions without rekeying bindery information. Archive, remove, compress directory trees. Reporting provides server information on users, groups, trustee assignments, disk usage per user. Includes NetBack.	395	319
priority messages, mixed media items, graphics editor, mail lists, integrity checking, more. Requires purchase of 8 or 25 user packs. DaVinci eMAIL DaVinci System 1906-001 Electronic mail software combines menus, windows, and mouse support in	995	895	LANshadow Network Management Inc. High degree of backup protection. All data runs parallel on backup server, temporary storage of data on an alternate server for maintenance and testing. Novell compatible, transfers all security, ownership, username, and login script information to shadow server.	695	659
a user friendly interface. May be run as a TSR. Features online help, password security, certified and priority mail. Supports NetWare MHS. DaVinci eMAIL Combo DaVinci System 1906-001 1,495 1,349		NETWORK OPERATING SYSTEMS Software for establishing networks for several PCs. Specialized bundles of software and hardware for peripheral sharing are located under Peripheral Sharing.			
Includes the DaVinci eMAIL systems for the DOS, Windows, and OS/2 interfaces.	,,,,,,	,,,,,,,	See also Operating System Enhancements; Multitasking Enhancements; Other Systems; Peripheral Sharing; Unix and XENIX. Natural Systems Calls for DOS	er Oper	ating
TBBS 16-Line eSoft 2710-003 The Bread Board System (TBBS). Multi-user Information Manager cont'd.	895	695	Netware Sys Calls for DOS Novell 141-031 Reference manual set for low-level Netware APIs. Describes and gives assembly language parameters for each call. Subset of Netware C Interface.	195	159
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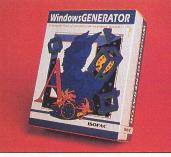
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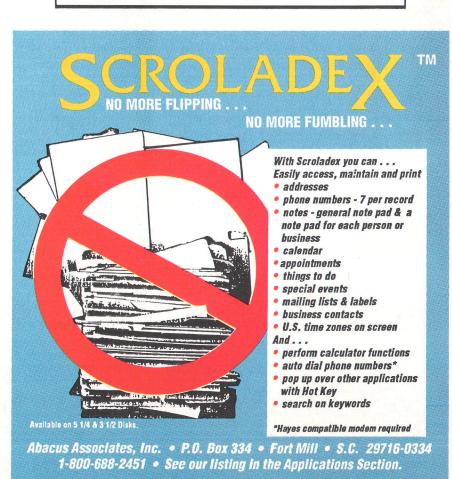
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TotalNET Syntax 3311-004	570	495	LANSpool LANSystems 1261-002	395	369
Includes all necessary software components for DOS client workstations. Includes TCP/IP, NetBIOS, and network control program. Compatible with Western Digital's WD8003E and other ethernet adaptors for DOS. Requires TotalNET Server. Quantity license available.			Attach multiple shared printers to a single PC rather than a NetWare server. Works with existing NetWare utilities including PCONSOLE, PRINTCON, and PRINTDEF. Runs as a Novell VAP in non-dedicated mode using minimal memory at the print server. Requires Novell Netware.		
OTHER NETWORK UTILITIES Software for general network system maintenance and enhancement.		adagada Kalendaria	PrintQ LAN	10	
See also the Utilities section. Network Eye			Memory resident print spooler. Control print priority, print multiple copies, write to disk and spool print files for printing at a later time. All	495	298
Artisoft 1498-002	199	189	ports can be routed to different printers. Pop-up status display; print with no intervention.		
Establish connection to any PC on a 100% netbios network. Control any network PC from a single PC. Uses 30K on controlling computer and 2K on monitored computer. Passwords protect computers from unauthorized monitoring or control. Supports character-oriented programs only.			TCP/IP Applications and utilities to provide TCP/IP connection to various. communications protocol generally found on Unix networks.	TCP/IP	is a
LT Auditor 1 server Blue Lance 1705-001	495	459	See also Unix Operating Systems; Communications Hardware; Network Operating PC/TCP Development Kit	ing Syst	em.
Audit trail for Novell networks. Detect all types of file access on network file server or workstation local drives. Consist of two programs, a TSR on each workstation and a Supervisor interface on the server. TSR occupies 20K. Produces files access and LAN access reports.			FTP Software Programming interface to PC/TCP. Provides direct access to the transport, network, and link layers to allow development at low-level protocols. Includes Berkeley Sockets emulation library and high-level protocols such	500	465
SiteLock Brightwork Development 1254-013	495	397	as ftp, rlogin, and telnet. PC/TCP Plus		
Helps enforce compliance with software license agreement and monitors application usage on NetWare LANs. Limits number of simultaneous users of application. Report and graphics display actual application usage. Virus protection feature verifies that program files are correct before running to ensure against viruses.			FTP Software Collection of programs to implement TCP/IP protocol and NFS for PCs. Provides ftp, rcp, telnet, rlogin, smtp, and others. Includes TSR kernel which allows 32 simultaneous network connections and InterDrive.	490	449
LANGARD file server Command Software 1275-005	005	045	Supports IP security options, VINES, NetWare, 3+Open, 10Net, and LAN manager-based networks.		
Integrated menu, security, and logging. Controls and protects LAN data from unauthorized viewing, altering, or deleting. Unattended workstation protection, network access control, data password protection, status reports. Query, sort, and report functions. Uses 15K.	395	345	X WINDOWS SERVER AND STATION EMULATO These are software products that allow a PC to emulate X Windows servers and Windows is a client-server graphics architecture. See also Unix & XENIX; LAN Operating Systems.	-	s. X
Map Assist Fresh Technologies 1982-001	349	329	Vista-eXceed		
Presn lecnnologies Provides peer-to-peer disk access. Authorized users MAP the physical drives of other workstations as their own logical drives. Compatible with disk cache utilities. Requires a Novell Network.	349	329	Control Data Real-mode X Window server for DOS PCs with 640K to 1M. PC becomes X terminal supporting up to 16 concurrent host applications. Supports X11 R4. Requires TCP/IP transport.	490	459
Netroom 4 Workstn Licence Helix Software 1623-009	149	129	Vista-eXceed Plus Control Data 2996-002	540	519
Relocate device drivers, TSR's, Novell's IPX and NetBIOS, NET3/NET4 into expanded, extended, and High DOS memory. DISCOVER utility displays information about hardware/software memory configurations. Ten user and 100-user licenses available.	145	129	Protected mode X Window Server for DOS with full X11 R4 implementation including XDM ControlProtocol and the Non Rectangular Window Shape Extension. Has escape to DOS key. Requires TCP/IP transport. Version available that supports any video adapter hardware compatible with IBM 8514 graphics adapter.		
LANSpace LANSystems 1261-004	495	459	PC-Xview Graphic Software Systems 223-048	445	405
Free up to an additional 56k of RAM on your Novell network. Loads the NetWare shell into extended memory. Unloads NetBIOS for applications that don't require it. Supports unlimited users on a single server. Requires a 286+ PC, 64K free extended memory, Netware.			X-windows terminal emulator for DOS. PC users have access to Unix hosts and X applications via TCP/IP network. Users hot-key between Unix X-windows and DOS without interrupting Unix applications. Accesses up to 16M, allowing more windows.	445	425
Disk Manager-N ONTRACK Computer Systems 1036-002	250	219	PC Xsight	405	400
Disk management for Novell network file servers. Installs many different drive types, including non-Novell compatible disks. Installs 286 NETWARE and offers surface analysis superior to COMPSURF. Supports RLL, ESDI, ST412/506, SCSI, and IDE on XT, AT, and compatible systems.			Server allows PC to function as X Window Server terminal. Allows user to run multiple programs on one or more computers concurrently from a single PC without UNIX commands. Supports variety of PC hardware. Features include virtual screens, user defined fonts, and access to DOS. Compatible with X11 Windows Ver 4.	425	409
Saber LAN Adm. Pack Saber Software 1969-007	695	549	Requires 2M memory, mouse, and TCP/IP. PC Xsight with TCP/IP		
Bundles the entire line of Saber LAN administration software. Includes Menu System for custom front-ends, Meter for monitoring, Secure for workstation security, Print Manager, and the LAN Setup Guide.			LOCUS PC Xsight with TCP/IP interface included.	495	479
PRINTER MANAGEMENT	halajaj	al agliaja	Requires 2M memory and mouse.		
Software for managing printer access among network users. See also Print Control and Font Editors; PostScript.					
PS-Print Brightwork Development LAN printing system allows any network PC to double as shared print server and workstation. Attach multiple printers to each PC, submit print	395	319			
jobs with standard NetWare commands. Has no login requirement to allow PCs to be logged out as print servers. Single server network license.					
Printer Assist Fresh Technologies Enables printer sharing. Integrated with Novell printing utilities, supports all printers, works across bridged servers, does not require interrupt-driven parallel ports, and logs and records all shared printer activity.	179	169			
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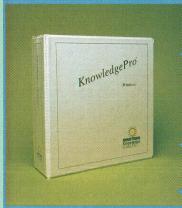
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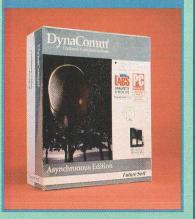
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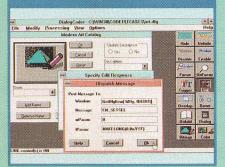
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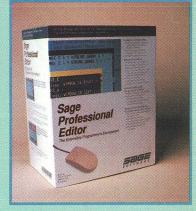
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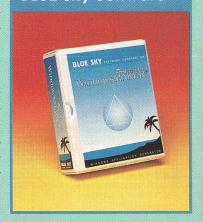
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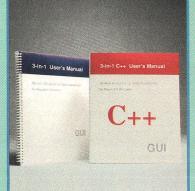
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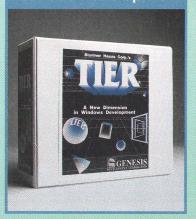
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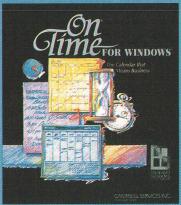
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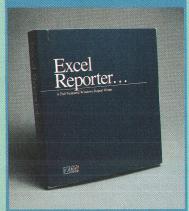


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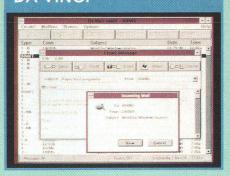
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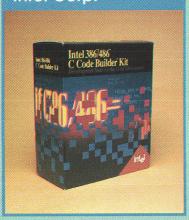
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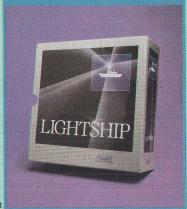
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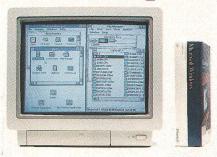
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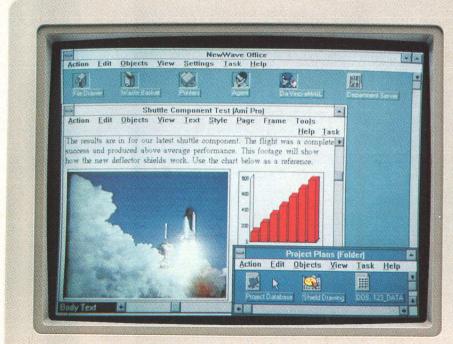


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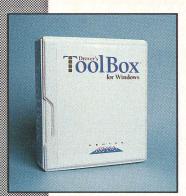
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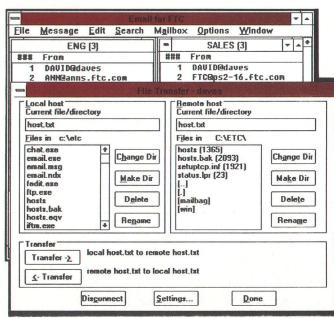
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data or graphics, outlining, mail merge, online help, annotation, and redlining. Reads DCA, WordPerfect, WordStar, and MultiMate files.			Drover Technologies 3059-003	885	719	
Legacy NBI 4273-001			Includes source code. KPWIN Math Toolkit			
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LIBRARIES			Microsoft 502-072 Development libraries for developing MS Windows applications.	500	365	
Collections of subroutines for communications, graphics, mathematics, data has	ndling, e	etc.	Graphical user interface provides windowing, menus, dialog boxes, and more. Full Support for MS C, MS Pascal and MASM. Includes linker,			
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C-TRIEVE/Windows Coromandel 1738-027	395	385	Windows Device Driver Kit			
ISAM file manager library developers can use to build data management applications. Callable from C and C++, upgrades to SQL, based on			Microsoft 502-131 Windows Device Driver Development Kit. Used to create device drivers	500	365	
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Btrieve for Windows Novell 141-001	595	479	Supports Toolbook, Superbase, SQLWindows, Excel, more.			
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db VISTA III Raima 126-096	195	159	Object-oriented graphics library. Create platform independent 2D graphics, including diverse shapes, bitmaps, text, and coordinate spaces. Includes			
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IDB Object Database			Genesis Development 1392-001 Over 110 classes that provide access to Windows 3.0 primitives. GDI	450	445	
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linking, networks, Includes interactive browser. Easy port to UNIX workstations. Requires Windows SDK.			Sage Control Pak/W			
CodeBase++ Seguiter Software	295	279	Intersolv Develop user interfaces for Windows applications. Contains object-	590	519	
Multi-user database management library for C++. Contains C++ classes for working with dBASE IV data, index, and memo files. Other classes to	293	213	oriented controls for rulers, sliders, toolboxes, arrows, palette and picture controls. Can be accessed from Dialog editor. Includes examples, source			
allow for setting up filters and relations, evaluating dBASE expressions, sorting, memory management, and manipulating linked lists. Source			code and DLL's for controls. Available for OS/2 PM. Requires Windows SDK.			
included. Works with Zortech, Turbo C++ under DOS, OS/2, Windows.			WNDX Graphical Interface Toolbox The WNDX Corp. 2635-005	795	695	
GENERAL FUNCTIONS			Object oriented C routines for Windows graphics functions. Device independent development system for building graphical user interfaces.			
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Blaise Computing 269-032 Library of over 100 classes for Windows development, most of which	249	219	graphics primitives, and more. Requires Microsoft C and Windows SDK.			
provide a simplified, high level C++ interface to Windows. The remainder can be used for representing internal data structures and integrating data			WinTrieve			-
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C++ Views CNS 943-004	405	455	and Actor class library. Journaling across multiple files and transaction processing. Access ISAM engine from C library or class library and Actor.			
Over sixty ready-made C++ object classes including containers,	495	455	Includes source code to class library. Supports LIM EMS. Requires Microsoft Windows.			
collections, sets, dictionaries and files, communications, user interface, more. Use OOP concept of inheritance to extend and specialize C++/Views. Browser manages mechanics of building applications.						
(++/ Views. Browser manages mechanics of building applications. Includes source code. Requires MS Windows SDK, C++ 2.0 compiler/preprocessor.						
Drover's ToolBox						
Drover Technologies 2952-001 Add over 200 functions to Windows SDK. New classes include time, date,	295	239				
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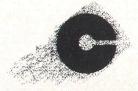
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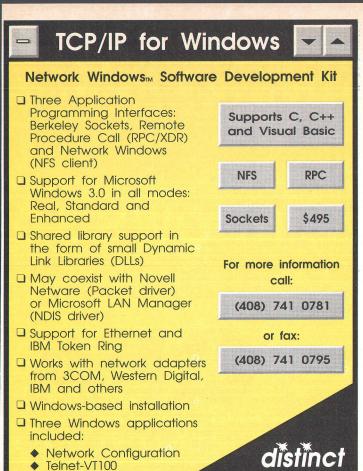
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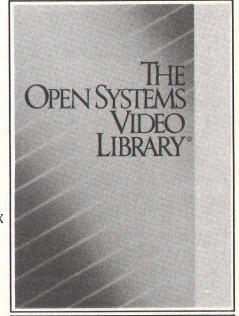
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GFA

WNDCLASS wc;

char *title = "GFA-BASIC";

long attr; HWND Wnd:

HDC Dc;

wc.style = CS_OWNDC\CS_DBLCLKS;

ws.lpfnWndProc = MyWndProc;

wc.cbClsExtra = 0;

wc.cbWndExtra = 0;

wc.hInstance = Instance;

wc.hlcon = LoadIcon(Instance, MAKEINTRESOURCE(MyICON));

wc.hCursor = NULL;

wc.hbrBackground = GetStockObject(WHITE BRUSH);

wc.lpszMenuName = "MyMenu";

wc.lpszClassName = "MyClass";

RegisterClass(&wc);

Wnd=CreateWindow("MyClass",title,attr,CW USEDEFAULT,CW USEDEFAULT, CW_USEDEFAULT, CW_USEDEFAULT, NULL, NULL, Instance, NULL);

ShowWindow(Wnd,SW_SHOW);

BringWindowToTop(Wnd);

Dc = GetDC(Wnd);

long FAR PASCAL MyWndProc(hWnd, message, wParam, lParam)

HWND hWnd;

unsigned message;

WORD wParam;

DWORD IParam;

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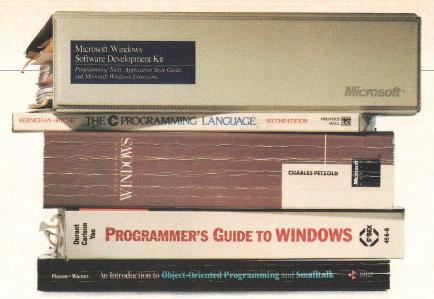
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NAPIL-DLL	ncluding erser uses	295	289	WATCOM C 8.0 Professional Edition Watcom Products Includes: 100% ANSI C optimizing compiler and library; protected-mode version of compiler; Windows support; library and source MS compatibile; graphics library; overlay linker; profiler; source-level, remote, overlay debugging; MAKE; runtime compatible with FORTRAN 77, SAA compatible, and WATCOM Express C. Includes 16-bit 80x86 DOS, Windows, and OS/2 versions.	495	439	
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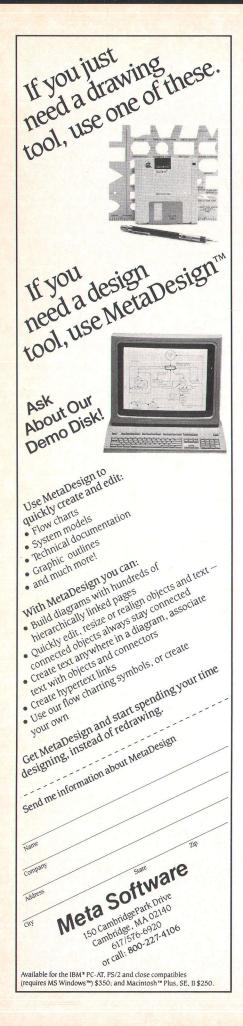
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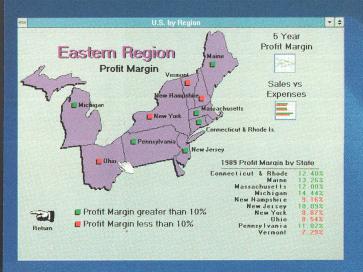
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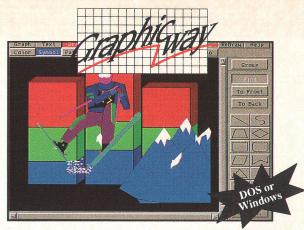
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E-mail system closely adheres to IBM's SAA/CUA and Windows standards. Supports MDI style of document handling. Graphical icons, text editor, access to external applications, create/exchage multimedia messages. Virtually all features of DOS version. Requires purchase of 8 or			forms-oriented interface & visual programming techniques. Incremental development methodology. Includes interpreter with a set of graphical tools: FORM, TREE, LINK, and STACK.		
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DaVinci System 1906-001 Electronic mail software combines menus, windows, and mouse support in a user-friendly interface. May be run as a TSR. Features online help, password security, certified and priority mail. Supports NetWare MHS. Eight user license.	1,145	1,029	Interactive information manager. Mix text, graphics, audio, and video into single document. Organize information as linkable objects. Includes LOGiiX, a Pascal like programming language. Supports ASCII, RTF, PCX, Windows Metafile, bitmap, and tiff. Supports Windows 3.0 and below. LightShip		
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Automated Design Systems Includes Windows Print Manager and Windows Menu. Create customized menus for Microsoft Windows applications. Add workstation security and data encryption. Control printer selection and provide print queue management features in the Windows environment. Ten user license.	695	595	Blue Sky Software Application generator/CASE that builds MS-Windows 3.0 applications in C. Point & click to design Windows user interface. Supports all Windows 3.0 functions. Produce Windows executable programs/complete source. Port DOS/Mac programs to Windows. Simplifies SDK; full WYSIWYG	795	715
SnapNET-Rel.1.0 U.S. Map Network Monitoring 4340-001	495	295	development environment with many tools. Requires MS SDK, MS C.		
Software tool under Microsoft Windows 3.0. Build, display, track, modify WAN and LAN topology layouts. Handles thousands of nodes. Automatic backup for recovery. Locator function places nodes automatically using area codes and prefixes.	493	233	WindowsMAKER Professional Blue Sky Software Power-user version of WindowsMAKER. Additional features: animation-test look and feel and make changes on the fly before compiling, integrated dialog box designer, icon, bitmap, & C++ support and more.	995	895
SnapNET-Rel.1.1 North American Map Network Monitoring 4340-001 Same as SnapNET US Map, but also includes map for Canada.	550	345	Custom code preserved during regeneration. CASE:W Corporate Edition CASEWORKS 1502-001	005	000
X WINDOWS SERVER AND STATION EMULATORS			CASEWOHKS Iso2-001 Includes all the functionality of CASE:W Standard Edition plus the following enhancements: multiple child windows, multiple document	995	969
Vista-eXceed/W Control Data 2996-014	540	519	interface (MDI), client area icons, child window control template, message support, windows help system, CUA compliance monitor.		
X Window Server for PCs running Windows. Full implementation of X11 R4 including XDM ControlProtocol and Non Rectangular Window Shape Extension. Requires TCP/IP transport.	340	313	No runtime fees or royalties. CASE:W for C++/CV CASEWORKS 1502-009	795	719
X11/AT Integrated Inference Machine 2020-001	495	469	Same as Case:W but generates code for Common View 2. CASE:W Standard		
Emulates X Windows 11.3, allowing PCs to become X Window display stations. Includes X Window Release 2 and Release 3 fonts, Telnet and FTP utilities, and a font compiler. Requires Ethernet board.			CASEWORKS Windows 3.0 GUI application generator and prototyper. Application variable integration with dialog controls. True code re-generation. Animation mode to test interface before compiling. Standard 3GL (C,	495	459
X/PAC Integrated Inference Machine 2020-005	1,295	1,245	C++) source code is error free with adjustable comment levels. Ports to CASE:PM.		
Complete X server emulation solution, includes TCP/IP services by FTP Software and proprietary ethernet board.			3-in-1 C GUI Computer 4008-005	159	155
Requires Microsoft Windows 3.0. XVision			Programming tool for Windows developers. Consists of screen designer and a C code generator. Creates all files to build a windows application.		
Unipress 168-022 X-server for PC networked to UNIX computer. Add X-Windows to MS	449	419	Create and arrange 12 types of objects, and modify various object attributes. Objects include static text, editable text, check boxes, buttons,		
Windows 2.x or 3.0. Run UNIX and DOS applications simultaneously with full access to networked UNIX resources. Supports electronic mail, databases, X-Window and text-based UNIX applications. Supports Ethernet or token ring with TCP/IP. Requires Microsoft Windows.			lists, scroll box, and more. 3-in-1 C++ GUI Computer Object-oriented version of 3-in-1. Includes all the features of 3-in-1 C but	199	189
TOOLS	+ 1-1		with ability to generate C++ source code. Incoporates C++ features of inheritance, data abstraction, and polymorphism.		
Stand-alone applications other than compilers that are used to help develors of tware.	p appli	cation	Object 1 mdbs 1506-003	995	895
APPLICATION GENERATORS			Object oriented code generator for Windows. Create interfaces and screens. Includes relational database management system, forms painter, source level debugger, project browser, incremental compiler, editor. 250		
Toolbook Asymetrix Windows application generator. Use OpenScript object-oriented programming language. Use the script recorder to automatically translate contd.	395	349	source level debugger, project browser, incremental compiler, editor. 250 predefined classes, C++ like syntax, graphics, and more. Requires 4M, 80286/386, hard disk.		
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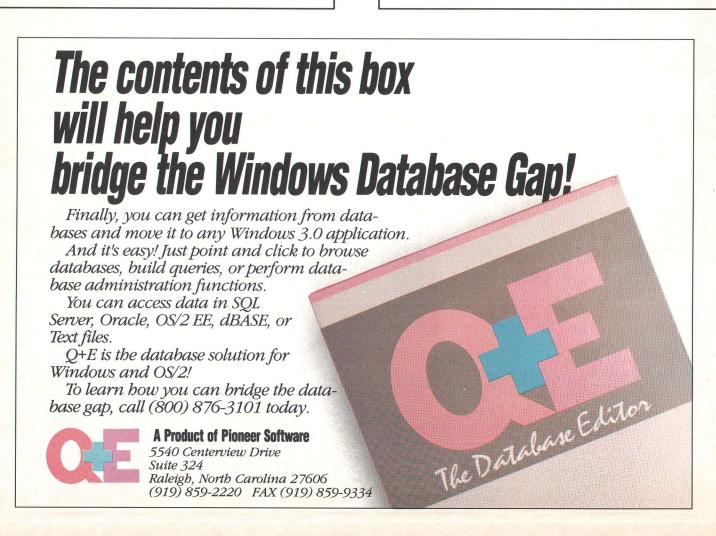
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DialogCoder The Software Organization Somer code generator for datable boxe. Provides animation feature for growing and the provides animation feature for growing and growing and the provides and the	ProtoView Development Interactive WYSIWYG screen painter to create Windows screens with buttons, bitmaps, etc. Perform data validation, protect fields, set up DDE hot links, display tables, dynamic testing, and more. Includes DLL with over 150 screen functions and 12 control objects. Generates commented C and resource source code.	695	675	Roykore 887-003 Flowcharting for Windows with 30 standard symbols, 60 arrowhead styles and sizes, and wide variety of colors, patterns, line widths, and text styles. Clicking on shape can be used to bring up another chart or note. Includes text searching, reporting, and password protection.	295	279
Instant Windows Combo Pack Wirsoft 2009-06 Develop validated interfaces with liberires, DDL's, tools, and code prevailed residence of the control of the co	DialogCoder The Software Organization Source code generator for dialog boxes. Provides animation feature for testing. Environment for the creation and modification of dialog C processing code. Supports conditional states, multiple triggers, linked controls, custom controls, automatic code regeneration, edit field	499	489	SpeedEdit Bradford Business 2835-004 Full screen text editor available for DOS, Windows 3.0, OS/2, OS/2 PM, Unix, Xwindows, and MPE character. User customizable, DDE regular expressions, language sensitivity, keyboard macros, multiple files, compilation and testing from within editor sessions.	295	265
Soft Name	Requires Windows 3.X Instant Windows Combo Pack Winsoft Develop validated interfaces with libraries, DDL's, tools, and code generators. Design money, date, time, picture strings, required/range/lookup checks, menus, windows, CUA objects spreadsheet-	995	969	Cognetic Systems 5028-001 Edit multiple files in overlapping windows. Large files up to 13K lines, browsing. Interactive search and replace, match brace, display current line number, go to line command. Direct link to SDK hypertext help. Dual mouse and keyboard interface, selectable screen fonts.	99	95
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149 179	DATABASE SERVERS			Z Soft 833-009 Automatic installation of 62 scalable fonts into most Windows	199	159
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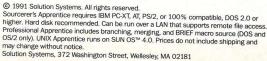
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595 529

695 615

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2,895

APPLICATIONS

Stand-alone software used to perform tasks such as word processing, accounting, spreadsheets, etc.

CorelDRAW Corel Systems

2003-003 Illustration program. Includes magnification, user-created character sets, interactive text manipulation and Bezier contours, font modification, tracing, bit-map scans, duplication and transformation, and more. Compatible with many images and typefaces.

HyperACCESS/5

Hilgraeve Inc. Communications program with DOS and OS/2 versions. On-the-fly virus detection. 60+ modems, including 9600+ bps and ISDN devices; 12 fast transfer protocols include Zmodem and HyperProtocol. 14 terminal emulations. BBS-like Answer mode with E-mail. Built-in editor; learn mode; sliding windows, point-and-shoot interface.

Wingz

Informix 434-113 Sophisticated, graphical spreadsheet with 20 business, engineering, and scientific 2D, 3D color graphs; desktop publishing integration of text and graphics; full-function text processor; database features; English-like programming language. Create front ends to INFORMIX, DB2, mainframe, Rdb/VMS, other SQL databases. Windows, OS/2, Mac, Sun, NeXT versions available.

1-2-3/G

Lotus 1917-037 3D worksheet environment. Up to 256 worksheets per file. Relational data management facilities. Business graphics and presentation quality output. Available for DOS and Unix. Requires OS/2 PM.

Excel PM Microsoft 502-103 495 Integrated spreadsheet, database and graphics package. Network support,

Z Programmer

3912-001 Object-oriented application development environment for Presentation Manager applications. Features ability to draw GUI on screen. Functionality is extended with ANSI C/C++ language. Includes object editor, C compiler/debugger, OO database, linker, DLL calls, brower, etc. Create classes and software components.

large spreadsheets, name cells, intelligent recalculation.

LIBRARIES

Collections of subroutines for communications, graphics, mathematics, data handling, etc. See also DOS Libraries section.

DATA FILE HANDLERS

Btrieve for OS/2

Novell Complete, key-indexed file handler for C, COBOL, BASIC, and Pascal. Multiple indices, fault tolerant processing, passwords, RAM caching, more. No royalties.

c-tree Plus

Faircom Portable B+ Tree functions provide multi-key ISAM management. Low level functions to create/maintain data and index files and high level functions for indexed/sequential access. Supports record/file locking, fixed/variable length keys, superfiles, dynamic file space reclamation,

resource records, more. Includes special developer version of Faircom Server.

PowerLibW

ETN Function library supporting dBASE III+ compatible file I/O. Includes multi-instance database server to develop true dBASE+ compatible read and write capabilities. Available for Windows.

MATHEMATICAL LIBRARIES

M++

Dyad Software 3138-013 295 279 C++ class library with multidimensional array algorithms. Run-time

numeric coprocessor detection. Index array classes to operate, assign, and manipulate portions of array based data. Complete vector, matrix, and tensor operations. Includes memory management routines. Available for DOS and Unix.

Supports Zortech C++.

OPERATING SYSTEM ENHANCEMENTS

ddeXPR

SUMMER 1991

ETN 2118-007 Function library supporting Dynamic Data Exchange for OS/2. Includes proprietary DDE server. Can launch and control applications. Functions for building DDE packets in most formats including BIFF, CF_TEXT, CSV, RTF. Available for Windows.

SCREENS AND WINDOWS

Curses Aspen Scientific

688-002 Implementation of the full UNIX curses package: screen attributes, windows, etc. Includes screen generator, version of UNIX make. DOS support, no royalties. UNIX System 5.3 compatible. Specify C compiler.

Vitamin C Creative Programming Interface library includes many menu and window types, input fields, push buttons, check boxes, scroll bars, help manager, pop-up text editor, integrated mouse support. Open architecture with hooks for customizing and extending. One package for developing for both DOS and OS/2. Portable to Unix/Xenix and VAX/VMS.

-Worthy

Solution Systems

Functions for windows, menus, help screens, error handling, text editor, keyboard handling, color palettes, mouse support, sound effects, and autodetection of display adapter type. Microsoft Windows compatible. No royalties.

Vermont Views Vermont Creative

C-language library consisting of over 550 functions for creating and managing data-entry, menus, windows, help systems, keyboard handling, error handling, and more. System developed as separate resource for use and learning. Many hooks/low-level functions for customized processing. Result code ports to DOS, UNIX/XENIX, VMS.

LANGUAGE

Compilers, interpreters, assemblers, database management systems, and expert systems used to create software.

See also DOS Language section.

ASSEMBLY

Macro Assembler (MASM) Microsoft

80386 Macro assembler for MSDOS and OS/2. On-line help, extensive documentation, editor, CodeView debugger, library manager, program maintenance utility, EXE file compression utility, EXE file header utility, and cross-reference utility included.

BASIC

BASIC Compiler

Microsoft 502-102 Develop programs for both DOS and OS/2. Includes editor, CodeView

debugger, and QuickBasic.

TopSpeed C Jensen & Partners

ANSI compatible optimizing C compiler. Extended library functions, Borland windows support, MS Windows programming, built-in make, hypertext help system. Runs in protected mode under OS/2, generates OS/2 protected mode programs and DOS programs, symbolic debugger, full source code to DOS real mode libraries, and more.

MetaWare High C OS/2 286 MetaWare

Optimizing ANSI C compiler that supports DOS and OS/2. Conifgurable for specific needs. Lint-like checking. Nested functions. Linkable to Pascal, other languages. Floating point support. Also generates 16-bit protected mode code for OS/286 and DOS16M. Requires MetaWare High C MS-DOS x86.

C 6.0 Compiler Microsoft

502-112 Incremental compiler and linker; integrated environment called Programmer's Workbench; Source Browser allows interactive browsing through project database, reviewing relationships/use of variables,

functions, definitions, and macros. Also build a CodeView 3.0 takes less than 20K on 286 or higher PC. Supports DOS, OS/2, and MS Windows. Also build and add-on tools;

WATCOM C 8.0 Professional Edition Watcom

Includes: 100% ANSI C optimizing compiler and library; protected-mode version of compiler; Windows support; library and source MS compatible; graphics library; overlay linker; profiler; source-level, remote, overlay debugging; MAKE; runtime compatible with FORTRAN 77, SAA compatible, and WATCOM Express C.

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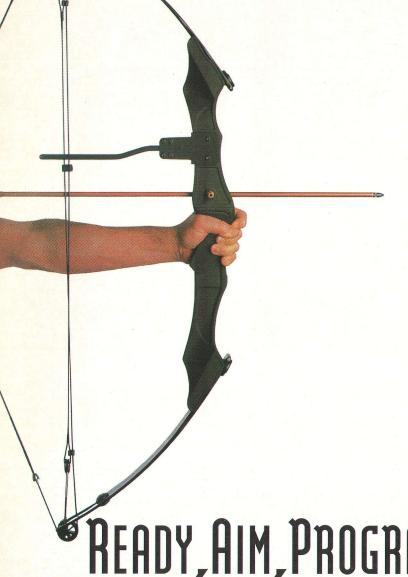
C++ V 3.0 Developer's Edition

Zortech 1108-072

Contains everything needed to develop compatible applications for DOS, Windows, OS/2, and DOS 386. Includes Zortech DOS Extender to

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debugger supports backtracking, breakpoints. Network and DOS support, huge memory model, indexed files, make, linker, editor. Develop in protected mode under OS/2 also.			Q+E Server Standard Edition Pioneer Software Same as Database Edition but only supports dBase, XLS, and ASCII files.	199	189	
Paradox for OS/2 Borland T777-065 DBMS with query by example, report and form generators, presentation graphics, application language, file import/export. Multiple table reports, cross tabulations, automatic restructuring of forms and reports. Memory management. Requires 3MB RAM	725	509	MultiScope OS/2 Debugger MultiScope 2657-003 Run time and post-mortem debuggers trace program execution or examine state after crash. Browse program source, procedures, data in 13 window types; view data graphically. DLL, child process, remote debugging; dual monitor; conditional breakpoints debugging. PM/character-mode interfaces. 100% CodeView compatible.	449	349	
FORTRAN WATCOM FORTRAN 77 WATCOM Optimizing Fortran 77 compiler uses register allocation and code generator optimizations to produce 16-bit 80x86 code. Offers protected mode, SAA compatibility, GKS graphics library, debugger, overlay and remote debugging, profiler. Includes OS/2 support.	495	449	Supports MS C 5.1/6.0, Pascal, MASM, Logitech Modula-2. Universal Device Driver Debugger OS TECHnologies Debug device drivers, installable file system drivers, and other system level software. Trace through driver code, set breadpoints, examine tables and memory, other functions. Fully symbolic, up to 10 symbol files. Does not interfere with OS/2 normal operation. Can use with application debugger. Sample device driver. Requires terminal; COMM 1, 2; OS/2 1.1 or 1.2 SE or EE.	249	219	
MODULA-2 Modula-2 OS/2 Development Pack Multiscope For OS/2 and PM development. Includes optimizing compiler, POINT windowed editor, and MultiScope debuggers. Create PM programs and DLLs. Portable libraries allow user to develop dual-mode programs for OS/2 and DOS. Package also includes MAKE, decoder, version and cross-reference utilities.	549	495	Codan Implements Builds database of information on large C programs. Shows relationship between functions, variables, structures, fields, macros, files. Customizable reports, automatically generates system documentation.	395	349	
Professional Modula-2 Stony Brook Software Development system. Includes QuickMod and "turbo" compilers, runtime library, DOS linker, more. Runtime library source available. OBJECT-ORIENTED LANGUAGES	295	259	EDITORS SPF/II for OS/2 Command Tech ISPF/PDF equivalent provides mainframe compatibility, 3270 emulation, REXX interface; includes 74 ISREDIT commands and will also run mainframe REXX macros. Files up to limit of virtual memory.	295	279	
Smalltalk/V PM Digitalk Smalltalk/V for OS/2 Presentation Manager. Includes full support for and access to all Presentation Manager functions from within the object-oriented Smalltalk/V environment. PASCAL	500	435	Professional Editor Intersolv User configurable editor with switchable features, including clean screen, tiled windows, overlapping windows in various colors, pull-down menus, rulers, scroll bars, and line numbers. C-like extension language; compiler/debugger. Files up to 100M; emulates Vi, Brief, WordStar, Epsilon, Emacs, more.	295	249	
Pascal Compiler Microsoft Write programs for both DOS and OS/2. Comes with BCD and floating point libraries, supports modularity and overlays. Includes editor and CodeView debugger.	300	199	Available for DOS. Epsilon Lugaru Software EMACS-like programmable editor. Run other programs or any compiler concurrently while editing. Edit several files at a time. Full undo/redo feature.	195	119	
TOOLS Stand-alone applications other than compilers and assemblers that are used to applications. See also DOS Tools section. CASE TOOLS	help de	velop	Slick Editor Micro Edge Program editor including undo/redo, multiple windows, multiple files up to 200M, EMS support. Compatible with Mac, UNIX, DOS, and ASCII files. Multiple clipboards, compiler error message processing, procedure tagging, typeless REXX-style macro language, programmable file	195	189	
CASE:PM for C CASEWORKS GUI application generator and prototyper for OS/2 PM. Application variable integration with dialog controls. True code re-generation. Animation mode to test interface before compiling. Error free standard 3GL code with adjustable comment levels. Ports to CASE:W. No runtime fees or royalties. Requires OS/2 PM Toolkit.	1,995	1,899	manager, command retrieval, DOS and OS/2 support, more. BRIEF Solution Systems Customizable programmer's editor. Unlimited windows; multi-level undo; C-like and LISP-like macro languages; macro language debugger; multiple keystroke macros; built-in support for most popular languages and networks; more. BRIEF uses all memory available to it; can edit files over 2 billion lines long.	249	219	000
CASE:PM for C++ CASEWORKS Same as Case:PM but generates code for Glockenspiel C++. CASE:PM for COBOL CASE:WORKS Same as Case:PM but generates code for COBOL. Requires OS/2 PM Toolkit and either MS or Microfocus Cobol.		1,899	GRAPHIC USER INTERFACE Object 1 mdbs 1506-003 Object oriented code generator for PM. Create interfaces and screens. Includes relational database management system, forms painter, source level debugger, project browser, incremental compiler, editor. 250 contd.	995	895	
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PC-lint 386
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Polint C Bug # 604

```
#include <stdio.h>
char *hello( char *s )
{
  char buffer [40];
  sprintf( buffer, "Hi %s", s );
  return buffer;
}
```

Assuming that the argument string is never greater than 20 characters there is, nonetheless, a subtle bug in this C function. Can you spot it? If not, give us a call. Hint: it "works" some of the time.

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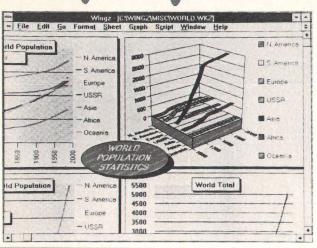
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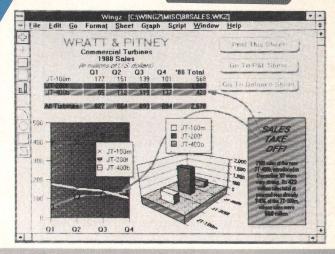
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predefined classes, C++ like syntax, graphics, and more. Requires 4M, 80286/386, hard disk.			UNIX-LIKE TOOLS PolyAWK		
OS/2 PM Softset Microsoft Software tools for programming with the OS/2 Presentation Manager. Included is a Font Editor, Dialog Editor, Icon Editor, and Resource Compiler. Requires Presentation Manager and a compiler.	150	109	Intersolv 111-105 Pattern matching language. Handles common text manipulation and data conversion tasks, multiple input files, dynamic regular expressions, and user-defined functions. True implementation of the awk standard according to authors. Includes pseudo compiler for use with PolyAWK runtime.	195	189
OS/2 PM Toolkit Microsoft Includes the OS/2 Presentation Manager Softset plus all three volumes of the Microsoft OS/2 Programmer's Reference, Programming the OS/2 Presentation Manager by Charles Petzold, and a disk of sample programs. Requires Presentation Manager and a compiler.	500	369	MKS AWK Mortice Kern Systems UNIX pattern-matching language for DOS or OS/2, compatible with specifications in "The AWK Programming Language" by Aho, Weinberger, and Kerrighan (included). Introduction to C and prototyping tool for larger programs.	179	149
TbxSHIELD The Stirling Group Allows creation of toolbox controls. Use custom icons, bitmaps, metafiles, text, owner drawn objects, and more as toolbox selectors. Variable sizes and shapes of toolbox possible. Animated buttons. Completely reusable software object. Also available for Windows.	295	275	MKS Lex & Yacc Mortice Kern Systems 100% UNIX compatible compiler construction tools for DOS or OS/2. Act as program generator that takes descriptive input and writes program module tha simplifies creation of languages by producing fast, compact, portable code.	349	299
INSTALLERS Install Knowledge Dynamics Script-driven product installer. Supports different fixed and floppy disk configurations, multiple target disks/subdirectories, on-the-fly file creation. Handles all DOS errors. Restrict user to install selected parts of	349	309	MKS Programmer's Platform Mortice Kern Systems 469-020 Includes MKS Toolkit, MKS MAKE, MKS RCS, and MKS LEX & YACC. Performs on standard PC networks like Novell Netware and PC NFS with illusion of complete UNIX timesharing system. MKS RCS	995	895
product. Unlimited number of disks/files; unlimited file size. CONFIG.SYS/AUTOEXEC.BAT editor; full source. Install Family Mode Knowledge Dynamics 1721-005	449	389	Mortice Kern Systems Enhanced version of UNIX rcs (revision control system). Controls and records revision to text or binary files such as program source files or word processor files. Handles large, complex projects. Converts SCSS and PVCS to RCS format. Fully network compatible.	349	319
Supports DOS and OS/2. Install International Knowledge Dynamics Adds international support for Install. Includes tools needed to translate into any foreign language, including multi-byte languages.	449	419	MKS Toolkit Mortice Kern Systems 469-004 Full implementation of over 150 UNIX utilities and brings functionality of UNIX System V.3 to DOS or OS/2. Includes KornShell, vi editor, AWK programming language, cpio, crypt, diff, egrep, sort, and tar.	349	299
EZ-Install The Software Factory 1119-001 Features Installation Aid menu-driven install generator. No scripts. Performs CONFIG/AUTOEXEC modification, hardware checks. Handles errors; installs parts of product. Unlimited disks and files. Full source and compression utility. EZ-PAINT included for custom menus/forms. No royalties or copyright.	249	239	Available for DOS and OS/2. VERSION CONTROL SYSTEMS TLIB 5.0 Version Control Burton Systems Includes both MS-DOS and OS/2 support. Allows retrieval of previous versions, manual and automatic branching, labels, check in/out locks,	195	175
EZ-Install The Software Factory Includes DOS and OS/2 versions. 1119-001	349	329	keywords, wild cards, file lists, binary file support, more. PVCS Professional Intersolv 111-089	495	439
InstallSHIELD The Stirling Group Script driven application installer and program group builder. Creates customized OS/2 PM installation programs. Automatically adds application to program groups. Percentage complete and other feedback controls.	595	549	Source code revision control system. Logs revisions, allows unlimited branching. Includes security features. Provides storage and retrieval of multiple revisions of text or code. Maintains complete history of changes made to each revision. **DOS version available.** Sourcerer's Apprentice*		
Available for Windows. MAKE PolyMake Intersolv 111-050	179	159	Solution Systems 732-139 System for managing changes to source code. Track each change made to a file. Document all changes. Recreate source file as it existed at any point in time. Prevent simultaneous updates to same source file. Secure source files on a file server from unauthorized access and updates. Installs on a file server.	499	459
Make utility. Recompiles altered source modules and relinks programs. Supports Polytron PVCS logfiles. Opus Make			Available for DOS and Unix. Personal version available. UTILITIES		
Opus Software OS/2 make utility has all features of UNIX version with many extensions. Works with Polytron PVCS and Burton Systems TLIB, LIB and SLR Systems OPTLIB. Includes makefile generator, timestampers for source and object files, an error message redirection utility, and a regular expression tester." DOS Memory Miser runs in 3K. Shipped with DOS version.	129	119	Applications for performing basic system maintainance and enhancement optimization, backup, and others. HPFS Utilities for OS/2 GammaTech Utilities designed for the OS/2 High Performance File System including HPFS386. Optimizes fragmented files, recover erased files, add file	such as	89
PARSERS AND LINTS PC-Lint Gimpel Software Analyzes C source code and finds program inconsistencies and bugs. Finds uninitialized and unused variables, locates unusual expressions,	139	115	comments, customize directory displays, alter file dates and attributes, locate lost, or duplicate files. Supports long file names and extended attributes. MultiBoot Bolt Systems OS/2 and DOS booting utility. Boots DOS or OS/2 without floppies. Automatically boots preferred system. For OS/2 compatible IBM PC AT,	50	50
PROFILERS AND PERFORMANCE ANALYZERS SegMentor MicroQuill Trace exact function level activity of applications. Algorithms are similar	2,795	2,295	XT, or PS/2. Requires DOS 3.0 or higher. Polymod2 Memsoft 2907-001	645	599
to those for auto-routing printed circuit boards. Explore solutions for optimal segment/overlay map. Applications are more compact. Minimize inter-segment (disk trashing) calls. Pragma directives for a new map provided in an include file. Available for DOS and Windows.	OGR	AMN	Allows DOS machines to access OS/2 sessions. Unlimited number of terminals. Security features.	Pos	e 129

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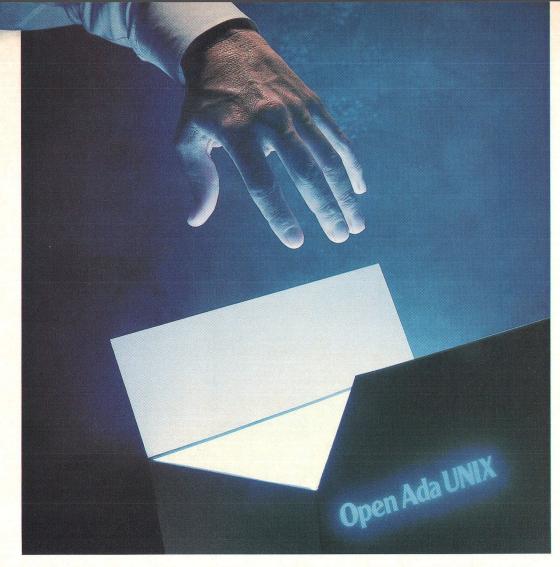
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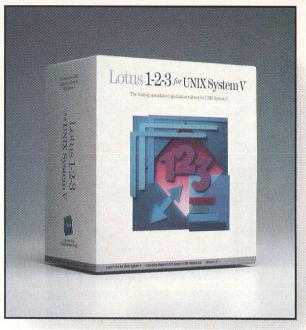
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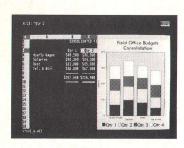
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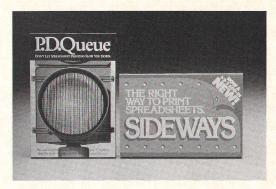
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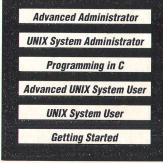


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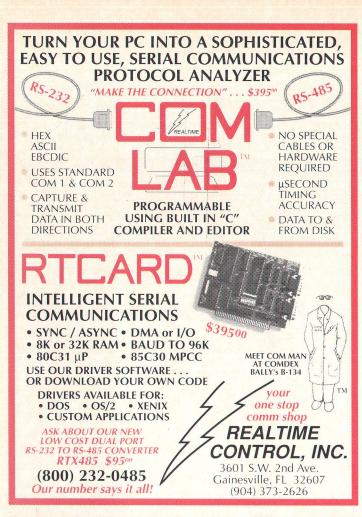
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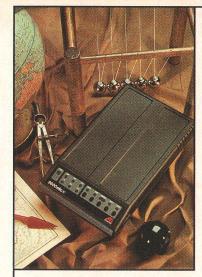
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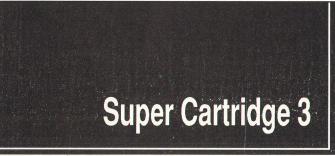
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For standalone PCs. **BigmOuth** Talking Technologies 259 295 Voice mail digital recording system for IBM PC, XT, AT, and compatibles. Includes half size board, phone cables, external speaker. 8 bit sampling Model UPS 520ES American Power 499 389 rate, 275-3100Hz/sec frequency response, 2.66:1 compression rate. Uninterruptible AC output supplied via RFI/EMI noise filter and surge BigmOuth Developer suppressor. Detect and transfer time 3ms. Rating of 520VA. Output is a stepped wave with correct RMS and peak values. For files servers and Talking Technologies 369 329 workstations. Novell tested and approved. BigmOuth board and TSR routines to integrate functions into custom applications. Routines accessible via software interrupts passed in AX and PowerSave 500 Plus DX registers. Routines include play from memory, record to memory, DTMF detection, ring detect, dialing functions, speaker control, and more. 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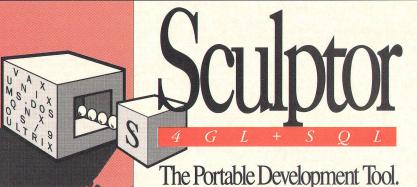
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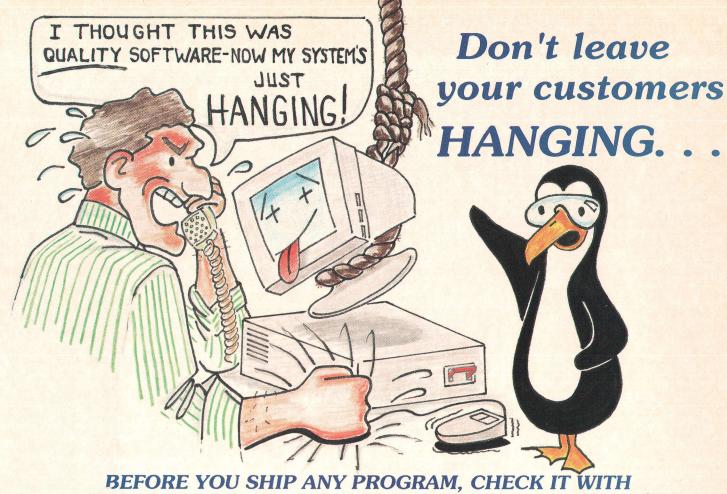
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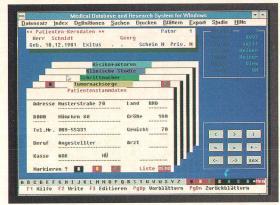
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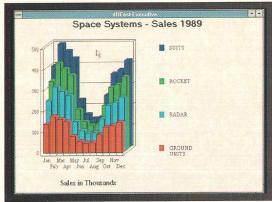
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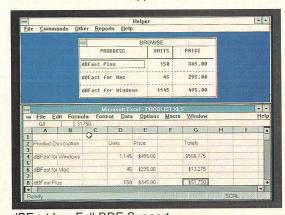




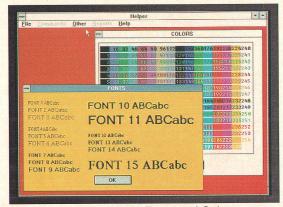
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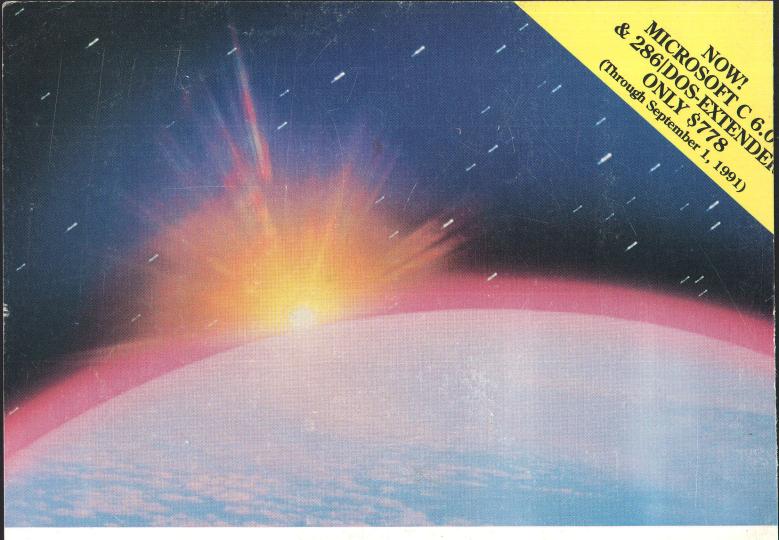
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